

Mr. Byler.

THE
RULE OF PRACTICE
METHODIZED AND IMPROVED.

WHEREIN

Are contained all the necessary CASES, and several
EXAMPLES wrought under each CASE, with
many CONTRACTIONS:

AND

EXAMPLES annexed to exercise the LEARNER;
which serves as a QUESTION-BOOK.

To, which are, added,

The most concise Methods of finding the Value of Goods sold by
particular Quantities.

The Whole adapted to the Use of

MERCHANTS, and WHOLESALE
and RETAIL DEALERS, in
every Branch of BUSINESS.

ALSO

DUODECIMALS by PRACTICE, applied to Work performed by

GLAZIERS,
PAINTERS,

PAVIORS, and
JOINERS.

AND

To measuring by the Square of 100 Feet, applied to
FLOORING, TYLING, and PARTITIONING.

LIKEWISE

Measuring of ROUND, SQUARED and UNEQUAL SQUARED TIMBER.

Designed for the Use of Schools, as well as private Gentlemen.

By JOHN DEAN, Accomptant.

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P R E F A C E.

TO endeavour to give Proofs of the Necessity of *The Rule of Practice*, and to enter into a Detail of its various Uses in Business, would be tiresome to the Reader, and stretch this Preface beyond its intended Limits.

It may perhaps be objected by some, Why so much of Practice?—To which I answer, This Rule is so very extensive, as appears by the Title Page, and the Methods so various, as may be seen by perusing the following Sheets, that any Person who is desirous of being a Proficient must work a great Variety of Examples.

Yet at the same time I do not say it is absolutely necessary for every one to go through all the Examples, provided he has a good Genius; but if he has not, I do not think here are too many.

I suppose the Learner thoroughly qualified in the following Rules of Arithmetic, *viz.* Numeration, Addition, Subtraction, Multiplication, Division, and Reduction. If he understands Vulgar Fractions let him begin at Page 9, if he is well versed in Multiplication and Division of Money, Weights, and Measures, let him begin at Page 47, and I do not doubt but he may make himself Master of the following Sheets, if he understands one Case well before he presumes to undertake the next.

P R E F A C E.

It now remains that I give some Account of the following Work.

For the more immediate Ease and Progress of the Learner, I have made the sixteen Cases, their Uses and Contractions, to depend upon some one or more prior Case or Cases, and have frequently wrought the same Example several different ways, as in Examples 133, 141, 302, &c. that those who prefer one Method before another, may please themselves, and at the same time one Method proves the other.

The Definition of Practice is in Page 1, where the Necessity of some Knowledge of Vulgar Fractions is shewn; which are introduced in the next Page.

In Multiplication of divers Denominations I have given the Learner a sufficient Number of Multipliers as in Example 32, 34, 36, 56, &c. Sometimes the same Example is wrought by adding or subtracting the Price, &c. of the Integer, as in Example 35, 37, 41, &c.

The first, fourteenth, nineteenth, twenty second, and many more Examples in Multiplication of divers Denominations, are wrought by the Help of Characters, the same being explained by Words at length opposite thereto.

As it more frequently happens that there are Remainders after dividing Money, &c. I have given Examples where there is but one Remainder, as in Example 92, &c. and also where there are two, as in Example 128, &c.

The next is Practice Tables, and the sixteen Cases, their Uses and Contractions; some of which, I hope, will be allowed to be the shortest, and at the same time as easy as any thing of the kind that has yet been offered to the Public.

The Application of the various Methods delivered in the foregoing Cases may be seen

I. In *Cloth Measure*, where you will sometimes meet with a Quotient between two double Lines, as in Example 642, &c. with a Remark by way of Explanation.

Also

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Also it is to be remarked that in Example 383, 384, &c. you will find a Quotient between two double Lines, I mean that *that* Line is only preparative to the next Line, viz. £ 2 : 16 : 10 $\frac{1}{2}$, which is the Answer.

Likewise in Example 724, there are several Quotients between double Lines, all which are only preparative to the last Line, viz. £ — : 1 : — $\frac{1}{4}$, which is the Price of 1*lb.*

At the End of Cloth Measure are added Contractions to several Examples.

II. In *Troy Weight*, with copious Tables of aliquot Parts, and several Contractions.

III. In *Avoirdupoise Weight*, where all the Variety of Examples in *C. Qrs. lb.* are inserted, some in *Tons C. Qrs.*; *Tons C. Qrs. lb.* also several of the most difficult in *lb. oz.*; *lb. oz. dr. oz.* and *dr.* likewise Reduction of *C. Qrs. lb.* into *lb.* with several practical Examples, and Contractions.

IV. In *Beer and Ale Measure*, where I have only made both a Barrel and a Hogshead of Beer and Ale the Integer, because to ascend to any higher, or to descend to any lower Denomination, would only swell the Book.

V. In *Wine Measure*, with a sufficient Variety of Examples.

VI. In *Land Measure*.

VII. In *Dry Measure*.

VIII. In *Simple Interest*, to which I have not given any aliquot Tables, but if any one should think it necessary to have them they may find them in the first Column of the Table in Page 229.

Some of these Examples are wrought by the common Method, and proved also by Practice.

IX, and X. In *Commission and Insurance*, where I have given but two Examples in each, and as they are wrought in all Respects the

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the same as those in Interest foregoing, I have therefore omitted Examples for the Learner's Exercise.

XI. In *Purchasing of Stocks*.

XII. In *Brokerage*.

XIII. In *Simple Interest* for Years, and Years and Months, which is as far as can be conveniently performed by Practice.

XIV. In *Compound Interest*, where I have given but two Examples, because it is seldom used.

XV. In *Loss and Gain*, in which is contained many Examples that may be of Service in Business.

XVI. In *Gross, Tare, Trett, and Cloff*, where I have given a compleat Set of Examples.

XVII. In several contracted Methods of finding the Value of Goods sold by particular Quantities, in which I first give general Rules, and have sometimes by way of Proof inverted the Question, as directed in Page 30; which if not sufficient see Page 279, for farther Instructions.

XVIII. In *Exchange*, where I have given a sufficient Variety of Examples so far as is consistent with the Design of this Work.

XIX. In *Duodecimals*, or squaring of Dimensions applied to Business.

XX. In *Solid Measure*, to which I have added one Example how to find the Tonnage of a Bale of Goods.

XXI. In *Measuring of Timber*, with Tables of aliquot Parts.

Lastly, An *Addenda*.

An Objection may perhaps be made against my Method of placing the Divisor in short Division, which I think may be obviated thus.—In Multiplication the Multiplier is placed under the Figures on the right Hand of the Multiplicand, Division being the contrary to Multiplication I therefore take the Liberty to place

P R E F A C E.

place the Divisor in the manner I have done; besides it is far neater, as may be seen in Example 800, where the Dividend 2650 is divided by 54, whereas if I had made use of the common Method of placing the first Divisor opposite to the Dividend, the next Divisor opposite to the first Quotient, the whole Example would have been confused; and in the Rule of Three, it prevents embarrassing the Work; as suppose the fourth Number or Answer to be Farthings, if I place the Divisor 4 under the Figure on the left Hand, it is better than if placed over it, or opposite, and so of the Divisors 12 and 20.

Here it will not be improper to give the Learner some Instructions, that he may be able to set down his Operations with regularity.

Let your Work be straight and even, both sideways and downwards, and your Black Lines be drawn just as far as the outermost Figures on each side, place each aliquot Part opposite to the Place where the intended Quotient must be, let each particular Denomination be exactly placed one under another, as also the separating Marks; but some chuse to place the aliquot Parts, and Work thus.

$$\begin{array}{rcl}
 s. & d. & Yards. \\
 2 : --- & \frac{1}{16} & 173 \text{ at } 2 : 9 \text{ } \frac{1}{16} \text{ Yard.} \\
 6 --- & \frac{1}{2} & 17 : 6 : --- \\
 3 --- & \frac{1}{4} & 4 : 6 : 6 \\
 & & 2 : 3 : 3 \\
 \hline
 \text{£} & 23 : 15 : 9
 \end{array}$$

Compare this with Example 229.

Yet the Inconvenience is still greater if the Operation is long, and renders it very difficult to correct, if any Error should be made.

The Whole has been examined by several Persons of known Abilities, to whom I think myself greatly obliged, and in a particular manner to my worthy Friend Mr PETER HUDSON, whose Assistance and useful Hints have been a means of rendering the Book more compleat.

As

P R E F A C E.

As this Work has been the Result of my own Experience and Practice in Teaching, I therefore hope it will be found worthy the Perusal of every candid Reader; and if there should happen to be any Errors which are not placed in the Errata, shall esteem it a great Favour if any Person will be so kind as to leave a Line with the Bookseller, signifying the Page and Line where such Errors may be found.

EXPLANATION of the CHARACTERS used in this Treatise.

- + the Sign of Addition, signifies that those Numbers between which it is placed are to be added together.
- the Sign of Subtraction, signifies that the latter of any two Numbers between which it is placed is to be subtracted from the former.
- × the Sign of Multiplication, signifies that those Numbers between which it is placed are to be multiplied together.
- ÷ the Sign of Division, shews that the former of two Numbers between which it is placed is to be divided by the latter.
- = the Sign of Equality, being placed between two Numbers shews that they are equal.

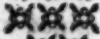
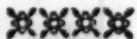
EXAMPLES.

$3 \times 7 = 21$ signifies that the Product of 3 multiplied by 7 is 21.

$4 \times 4 + 1 = 17$ signifies that if to the Product of 4 multiplied by 4 you add 1, the Sum will be 17.

$3 \times 6 - 1 = 17$ signifies that if from the Product of 3 multiplied by 6 you subtract 1, the Remainder will be 17.

$21 \div 4 = 5\frac{1}{4}$ signifies that the Quotient of 21 divided by 4, is $5\frac{1}{4}$.



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ERRATA.

PAGE 33, in the last Line, for b_7 , read by .

Page 36, Line 4, for b_7 , read by .

Page 46, in the second Example for the Learner's Practice, for $\frac{1}{11}$, read $\frac{1}{11}$ or $\frac{1}{8}$.

Page 51, Line 14, for $8-8$, read $8-8$.

Page 66, Example 251, for $6 : \frac{1}{10} : 6$, read $6 : \frac{1}{10} : 6$.

Page 73, Line 6, for $\angle 49 : 15 : 6$, read $\angle 49 : 15 : 8$.

Page 75, Line 10, for $\angle 18 : 1 : 10$, read $\angle 18 : 1 : 10\frac{1}{2}$.

Page 75, Line 11, for $\angle 18 : 3 : 1$, read $\angle 18 : 3 : 1\frac{1}{2}$.

Page 75, Line 12, for $\angle 54 : 5 : 8$, read $\angle 54 : 5 : 8\frac{1}{2}$.

Page 86, Line 15, for $\angle 21 : 10 : 8\frac{1}{2}$, read $\angle 21 : 10 : 8\frac{1}{2}$.



PRACTICE.

DEFINITION.



PRACTICE is a short Method of finding the Value of any kind of Merchandise, &c. and is generally performed by aliquot or exact Parts of Numbers.

An aliquot Part of any Number is such, that if the said Part be taken certain Times, it shall just make the Number whereof it is a Part.

So $\left\{ \begin{smallmatrix} d. \\ 2 \\ 3 \\ 4 \end{smallmatrix} \right\}$ is an aliquot Part of $\left\{ \begin{smallmatrix} d. \\ 12 \end{smallmatrix} \right\}$, for if $\left\{ \begin{smallmatrix} d. \\ 3 \\ 4 \end{smallmatrix} \right\}$ be taken $\left\{ \begin{smallmatrix} 6 \\ 4 \\ 3 \end{smallmatrix} \right\}$ Times, it shall just make 12; therefore $\left\{ \begin{smallmatrix} d. \\ 2 \\ 3 \\ 4 \end{smallmatrix} \right\}$ is the $\left\{ \begin{smallmatrix} 1 \\ 2 \\ 3 \\ 4 \end{smallmatrix} \right\}$ Part of a Shilling.

If we divide by the aliquot Parts of a $\left\{ \begin{smallmatrix} \text{Penny} \\ \text{Shilling} \\ \text{Pound} \end{smallmatrix} \right\}$ the Quotient will be $\left\{ \begin{smallmatrix} \text{Pence.} \\ \text{Shillings.} \\ \text{Pounds.} \end{smallmatrix} \right\}$

Since every aliquot Part is a Fraction, it will be necessary in the first Place, for the sake of those who have not learned Fractions, to treat of so much of them as is just necessary for a thorough Understanding of this Treatise.

I have also annexed Multiplication and Division of Money, Weights, and Measures, which are often made use of in Business.

I N T R O D U C T I O N.

*Containing as much of VULGAR FRACTIONS as is necessary
for the understanding of this Treatise.*

D E F I N I T I O N S.

A Fraction is a Part or Parts of an Unit or whole Thing, whether it be a Pound, Yard, Year, or any thing else.

A vulgar Fraction consists of two Parts, Numerator and Denominator.

The Denominator shews how many Parts the whole Thing is divided or supposed to be divided into, being only the Divisor in Division; it is placed below a small Line.

The Numerator expresses how many of those Parts are the Value of the Fraction, being the Remainder after Division; it is placed above the Line, thus,

$$\frac{3}{4} \begin{array}{l} \text{Numerator} \\ \text{Denominator} \end{array} \} \text{ read, three fourths.}$$

Which may be exemplified by the following Line A B, divided into 4 equal Parts.



There are five Sorts of Fractions, viz.

1. Proper, or Simple.
2. Improper.
3. Compound.
4. Mixt.
5. Compound mixt.

1. Proper, or simple Fractions are those that are less in Value than an Integer; and therefore have their Numerators less than their Denominators; as, $\frac{1}{2}$, $\frac{1}{3}$, $\frac{2}{3}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{2}{5}$, $\frac{1}{6}$, $\frac{1}{7}$.

Since $\frac{3}{4}$ are equal to the Sum of $\frac{1}{4}$, $\frac{1}{4}$ and $\frac{1}{4}$; or the Sum of $\frac{1}{4}$ of 1, $\frac{1}{4}$ of 1, and $\frac{1}{4}$ of 1, i. e. $\frac{1}{4}$ of 3 ones; it follows, that $\frac{3}{4}$ are equal to $\frac{1}{4}$ of 3, or 3 divided by 4.

So the following Fractions may be read thus,

$$\frac{1}{4} \text{ one fourth, } \frac{3}{10} \text{ three tenths, } \frac{7}{9} \text{ seven ninths, } \} \text{ or } \left\{ \begin{array}{l} 1 \\ 3 \\ 7 \end{array} \right\} \text{ divided by } \left\{ \begin{array}{l} 4 \\ 10 \\ 9 \end{array} \right\}$$

Hence

FRACTIONS.

Reduction. 3

Hence $\frac{1}{10}$ of any given Number will be discovered, by multiplying it by 3, and dividing the Product by 10; the Quotient will be the Answer.
See CASE III.

2. Improper Fractions are greater, or at least equal in Value to an Integer, and therefore have their Numerators greater than, or equal to, their Denominators, as, $\frac{3}{2}$, $\frac{4}{3}$, (See the Line A B, Page 2) $\frac{9}{8}$, $\frac{17}{8}$.

3. Compound Fractions are Fractions of Fractions, or Parts of Parts, consisting of several Numerators and Denominators connected together, with the Word *of* between them, as, $\frac{1}{2}$ of $\frac{1}{4}$, $\frac{2}{3}$ of $\frac{1}{4}$, (See the above Line) $\frac{1}{4}$ of $\frac{1}{4}$ of $\frac{1}{5}$ of $\frac{1}{12}$.

4. Mixt Numbers consist of Integers and Fractions, as $1\frac{1}{2}$, (See the Line) $8\frac{2}{3}$ lb. $87\frac{3}{4}$ C.

5. Compound mixt Fractions consist of a single Fraction with the Word *of* after it, followed by a whole Number, or Number consisting of several Denominations, as, $\frac{1}{2}$ of 873, $\frac{1}{4}$ of 8 s. 9 d. $\frac{2}{3}$ of £ 8 : 17 : 6 $\frac{1}{2}$.

R E D U C T I O N.

C A S E I.

To reduce a mixt Fraction into an improper Fraction.

RULE. Multiply the integral Part by the Denominator of the fractional Part, to the Product add the Numerator; the Sum will be a new Numerator, which must be placed over the above Denominator.

To express a whole Number Fraction-ways, set 1 under it for its Denominator.

Examples.

1. Reduce $1\frac{1}{2}$ to an improper Fraction.

$$\begin{array}{r} 1\frac{1}{2} \\ \frac{4}{5} \end{array} \quad \frac{3}{4} \text{ Answer.}$$

5 New Numerator.

2. Reduce $1\frac{1}{2}$ Yard to an improper Fraction.

$$\begin{array}{r} 1\frac{1}{2} \text{ Yard.} \\ \frac{8}{11} \end{array} \quad \frac{11}{8} \text{ Answer.}$$

11 New Numerator.

Examples for the Learner's Practice.

$$\text{Reduce } \left\{ \begin{array}{l} 2\frac{1}{2} \\ \text{Yds} \\ 7\frac{1}{2} \\ \text{C.} \\ 17\frac{1}{2} \\ 87 \end{array} \right\}$$

to an improper Fraction.

$$\left\{ \begin{array}{l} \frac{2}{3} \\ \frac{2}{3} \\ \frac{1}{2} \\ \frac{2}{3} \\ \frac{2}{3} \end{array} \right\}$$

Answer.

B 2

CASE

C A S E II.

To reduce a simple Fraction to its lowest Terms.

RULE. If we can take $\frac{1}{2}, \frac{1}{3}, \frac{1}{4}, \frac{1}{5}, &c.$ of both the Numerator and Denominator, without leaving any Remainder; (which may be readily done with such Fractions as are hereunder given) the Fraction will be thereby lessened as to its Figures, but always remains the same in Value.

If both Numerator and Denominator have Cyphers annexed, cut off an equal Number from each, and the Fraction will be lessened, keeping the same in Value.

Examples.

3. Reduce $\frac{2}{8}$ to its lowest Terms.

The Number 2 will divide both the Numerator and Denominator without leaving any Remainder, the Quotients will be the Answer.

$$2 \overline{) \frac{2}{8}} \left(\frac{1}{4} \text{ Answer.} \right.$$

4. Reduce $\frac{3}{18}$ to its lowest Terms.

$$3 \overline{) \frac{3}{18}} \left(\frac{1}{6} \text{ Answer.} \right.$$

5. Reduce $\frac{4}{20}$ to its lowest Terms.

$$4 \overline{) \frac{4}{20}} \left(\frac{1}{5} \text{ Answer.} \right.$$

6. Reduce $\frac{10}{25}$ to its lowest Terms.

$$5 \overline{) \frac{10}{25}} \left(\frac{2}{5} \text{ Answer.} \right.$$

7. Reduce $\frac{120}{480}$ to its lowest Terms.

$$120 \overline{) \frac{120}{480}} \left(\frac{1}{4} \text{ Answer.} \right.$$

8. Reduce $\frac{110}{120}$ to its lowest Terms.

$$\frac{110}{120} \left(\frac{11}{12} \text{ Answer.} \right.$$

Examples for the Learner's Practice.

$$\text{Reduce } \left\{ \begin{array}{l} \frac{8}{16} \\ \frac{1}{3} \\ \frac{16}{20} \\ \frac{20}{35} \\ \frac{110}{410} \\ \frac{720}{110} \end{array} \right\} \text{ to its lowest Terms. } \left\{ \begin{array}{l} \frac{1}{2} \\ \frac{1}{3} \\ \frac{4}{5} \\ \frac{4}{7} \\ \frac{1}{4} \\ \frac{72}{11} \end{array} \right\} \text{ Answer.}$$

C A S E III.

To find the Value of a Compound Mixt Fraction.

RULE. Multiply the whole Number, or Number consisting of several Denominations, by the Numerator, and divide the Product by the Denominator, the Quotient will be the Answer. See Remark under Definition 1. Page 3.

Examples.

Examples.

9. Reduce
- $\frac{1}{3}$
- of 873 to its Value.

$$\begin{array}{r} 873 \\ 3 \overline{) 2619} \\ 8 \overline{) 327\frac{1}{2}} \end{array} \text{ Answer.}$$

10. Reduce
- $\frac{1}{3}$
- of £ 1 : 19 : 4 to its Value.

$$\begin{array}{r} \text{£ } 1 : 19 : 4 \\ 3 \overline{) 5 : 18 : -} \\ 4 \overline{) \text{£ } 1 : 9 : 6} \end{array} \text{ Answer.}$$

11. Reduce
- $\frac{1}{3}$
- of 2s. 9d. to its Value.

$$\begin{array}{r} s. 2 : 9d. \\ 3 \overline{) 8 : 3} \\ 8 \overline{) 1 : -} \end{array} \text{ Answer } 1 : -\frac{1}{4} + \frac{1}{8} \text{ or } \frac{1}{2} \text{ a Farthing.}$$

12. Reduce
- $\frac{1}{5}$
- of £ 1 : 10 : 7 to its Value.

$$\begin{array}{r} \text{£ } 1 : 10 : 7 \\ 5 \overline{) 7 : 12 : 11} \\ 4 \overline{) 1 : 18 : 2\frac{1}{4}} \end{array} \text{ Answer.}$$

13. Reduce
- $\frac{1}{11}$
- of £ 4 : 16 : 7 to its Value.

$$\begin{array}{r} \text{£ } 4 : 16 : 7 \\ 11 \overline{) 53 : 2 : 5} \\ 8 \overline{) \text{Ans } \text{£ } 6 : 12 : 9\frac{1}{2} + \frac{1}{8} \text{ or } \frac{1}{2} \text{ a Farthing.}} \end{array}$$

14. Reduce
- $\frac{1}{7}$
- of £ 2 : 17 : 10 to its Value.

$$\begin{array}{r} \text{£ } 2 : 17 : 10 \\ 7 \overline{) 20 : 4 : 10} \\ 4 \overline{) \text{£ } 5 : 1 : 2\frac{1}{2}} \end{array} \text{ Answer.}$$

Examples for the Learner's Practice.

$$\text{Reduce } \left\{ \begin{array}{l} \frac{1}{3} \\ \frac{1}{2} \\ \frac{3}{4} \\ \frac{1}{4} \\ \frac{1}{8} \\ \frac{1}{2} \end{array} \right\} \text{ of } \left\{ \begin{array}{l} 825 \\ \text{£ } 7 : 14 : 2 \\ \text{£ } 1 : 1 : 7\frac{1}{4} \\ \text{£ } 2 : 17 : - \\ \text{£ } 1 : - : 3\frac{1}{2} \\ \text{£ } 2 : 17 : 5 \end{array} \right\} \text{ to its Value } \left\{ \begin{array}{l} 309\frac{1}{2} \\ \text{£ } 4 : 12 : 6 \\ \text{£ } 0 : 14 : 4\frac{1}{2} + \frac{1}{2} \\ \text{£ } 3 : 11 : 3 \\ \text{£ } 1 : 7 : 10\frac{1}{2} + \frac{1}{4} \\ \text{£ } 12 : 18 : 4\frac{1}{2} \end{array} \right\} \text{ Ans.}$$

C A S E IV.

To find the Value of a simple Fraction in its known Parts.

RULE. Reduce the Numerator of the given Fraction (by common Reduction) into the Denomination that the Value is required in, divide the Product by the Denominator of the Fraction; and the Quotient will be the Value required in its known Parts.

Examples.

6 Reduction.

VULGAR

Examples.

15. Find the Value of $\frac{7}{1}$ of a Pound Sterling.

$$\begin{array}{r} 7 \\ 20 \\ \hline 140 \text{ Shillings.} \\ 8 \\ \hline \end{array}$$

$\therefore 17 : 4$ Answer 17s. 6d.

$$\begin{array}{r} 12 \\ 48 \text{ Pence.} \\ 8 \\ \hline 6d. \end{array}$$

16. Find the Value of $\frac{6}{10}$ of a Pound Sterling.

$$\begin{array}{r} 6 \\ 20 \\ \hline 120 \text{ Shillings.} \\ 10 \\ \hline \end{array}$$

$\therefore 1 : 40$ Answer 1s. 6d.

$$\begin{array}{r} 12 \\ 480 \text{ Pence.} \\ 80 \\ \hline 6d. \end{array}$$

18. Find the Value of $\frac{7}{10}$ of a Shilling.

$$\begin{array}{r} 7 \\ 12 \\ \hline 84 \\ 20 \\ \hline \end{array}$$

$d. 4 : 4$

Answer d. 4 + $\frac{4}{10}$ or $\frac{1}{2}$ of a Penny.

17. Find the Value of $\frac{17}{10}$ of a Pound Sterling.

$$\begin{array}{r} 17 \\ 20 \\ \hline 19)340(17s. \\ 19 \\ \hline 150 \\ 133 \\ \hline 17 \\ 12 \\ \hline \end{array}$$

19)204(10d.

$$\begin{array}{r} 19 \\ 14 \\ 4 \\ \hline 19)56(2 \text{ Farthings.} \\ 38 \\ \hline 18 \end{array}$$

Answer 17s. 10 $\frac{1}{2}$ + $\frac{18}{10}$.

19. Find the Value of $\frac{6}{10}$ of a Penny.

$$\begin{array}{r} 6 \\ 4 \\ \hline 24 \text{ Farthings.} \\ 20 \\ \hline \end{array}$$

Farthing 1 : 4

Answer 1 Farthing + $\frac{4}{10}$ or $\frac{1}{2}$ of a Farthing.

Examples for the Learner's Practice.

Find the Value of	$\left\{ \begin{array}{l} \frac{1}{10} \\ \frac{1}{20} \\ \frac{1}{40} \\ \frac{1}{80} \\ \frac{1}{160} \end{array} \right\}$	of	$\left\{ \begin{array}{l} \text{a Pound Sterling} \\ \text{ditto} \\ \text{ditto} \\ \text{a Shilling} \\ \text{a Penny} \end{array} \right\}$	Answer	$\left\{ \begin{array}{l} \text{£} - : 6 : 8 \\ \text{£} - : 1 : 2 \\ \text{£} - : 12 : 8\frac{1}{2} + \frac{1}{10} \\ \text{£} - : - : 7\frac{1}{2} + \frac{1}{10} \\ \text{£} - : - : 1 + \frac{1}{10} \end{array} \right\}$

CASE

C A S E V.

To reduce an improper Fraction to a mixt Number.

RULE. Divide the Numerator by the Denominator, the Quotient will be Integers; the Remainder, if any, will be a new Numerator, which must be placed over the given Denominator.

Annex the new Fraction to the Integers.

Examples.

20. Reduce $\frac{7}{7}$ to a mixt Number.

$$\begin{array}{r} 7 \\ 7 \\ \hline 1 \end{array} \text{ Answer.}$$

21. Reduce $\frac{15}{8}$ to a mixt Number.

$$\begin{array}{r} 15 \\ 8 \\ \hline 1 \frac{7}{8} \end{array} \text{ Answer.}$$

22. Reduce $\frac{19}{8}$ to a mixt Number.

$$\begin{array}{r} 19 \\ 8 \\ \hline 2 \frac{3}{8} \end{array} \text{ Answer.}$$

Examples for the Learner's Practice.

$$\text{Reduce } \left\{ \begin{array}{l} \frac{17}{3} \\ \frac{19}{3} \\ \frac{11}{11} \end{array} \right\} \text{ to its Value } \left\{ \begin{array}{l} 5 \frac{2}{3} \\ 6 \frac{2}{3} \\ 1 \end{array} \right\} \text{ Answer.}$$

A D D I T I O N

Of Fractions of the same Denominators.

RULE. Add all the Numerators together, under the Sum place the given Denominator.

If the Answer is a simple Fraction, let it be reduced to its lowest Terms by Case II.

But if the Answer is an improper Fraction, reduce it to a mixt Number by Case V.

Examples.

23. Add $\frac{1}{8}$ and $\frac{2}{8}$ together.

$$\begin{array}{r} \frac{1}{8} \\ \frac{2}{8} \\ \hline \end{array} \text{ Answer } \frac{3}{8} = \frac{3}{8} \text{ by Case II.}$$

24. Add $\frac{1}{8}$ and $\frac{3}{8}$ together.

$$\begin{array}{r} \frac{1}{8} \\ \frac{3}{8} \\ \hline \end{array} \text{ Answer } \frac{4}{8} = \frac{1}{2}$$

25. Add $\frac{1}{4}$ and $\frac{3}{4}$ together.

$$\begin{array}{r} \frac{1}{4} \\ \frac{3}{4} \\ \hline \end{array} \text{ Answer } \frac{4}{4} = 1 \text{ by Case V.}$$

26. Add $\frac{1}{8}$, $\frac{2}{8}$, $\frac{3}{8}$ and $\frac{2}{8}$ together.

$$\begin{array}{r} \frac{1}{8} \\ \frac{2}{8} \\ \frac{3}{8} \\ \frac{2}{8} \\ \hline \end{array} \text{ Answer } \frac{8}{8} = 1 \text{ by Case V.}$$

Examples

*Examples for the Learner's Practice.*Add $\left\{ \frac{1}{2} \text{ and } \frac{1}{2} \right\}$ together $\left\{ \frac{5}{1} \right\}$ Answer.What is the Sum of $\left\{ \begin{array}{c} \frac{1}{2} \text{ and } \frac{1}{2} \\ \frac{1}{3}, \frac{1}{3}, \frac{1}{3}, \text{ and } \frac{1}{3} \\ \frac{1}{5}, \frac{1}{5}, \frac{1}{5}, \text{ and } \frac{1}{5} \end{array} \right\}$ Answer $\left\{ \begin{array}{c} 1 \\ 2 \\ 2\frac{2}{5} \end{array} \right\}$

M U L T I P L I C A T I O N

O f F R A C T I O N S.

RULE. Multiply the Numerators together for a new Numerator.

Multiply the Denominators together for a new Denominator.

Reduce the Product, when it is a proper Fraction, to its lowest Terms, by Case H.

But if the Product be an improper Fraction, reduce it to a mixt Number, by Case V.

*Examples.*27. Multiply $\frac{2}{3}$ by $\frac{7}{3}$.
 $\frac{2}{3} \times \frac{7}{3} = \frac{14}{9}$ Answer.28. Multiply $\frac{1}{2}$ by 7.
 $\frac{1}{2} \times 7 = \frac{7}{2} = 3\frac{1}{2}$ Answer.
* See Case I.29. Multiply $\frac{1}{2}$ by 8.
 $\frac{1}{2} \times 8 = \frac{8}{2} = 4$ Answer.30. Multiply $\frac{7}{8}$ by 9.
 $\frac{7}{8} \times 9 = \frac{63}{8} = 7\frac{7}{8}$ Answer.31. Multiply $\frac{1}{2}$ by $\frac{3}{4}$.
 $\frac{1}{2} \times \frac{3}{4} = \frac{3}{8}$ Answer.32. Multiply $\frac{4}{5}$ by $\frac{3}{5}$.
 $\frac{4}{5} \times \frac{3}{5} = \frac{12}{25}$ Answer.*Examples for the Learner's Practice.*Multiply $\left\{ \begin{array}{c} \frac{1}{2} \\ \frac{2}{3} \\ \frac{3}{4} \\ \frac{4}{5} \end{array} \right\}$ by $\left\{ \begin{array}{c} \frac{1}{7} \\ 7 \\ 9 \\ \frac{1}{2} \end{array} \right\} = \left\{ \begin{array}{c} \frac{1}{14} \\ 4\frac{2}{3} \\ 3\frac{3}{4} \\ \frac{11}{10} \end{array} \right\}$ Answer.

M U L T I P L I C A T I O N

Of Money, Weight, and Measure.

I. **W**HEN the Multiplier is not above 12.

R U L E.

Place the Multiplier under the lowest Denomination of the Multiplicand.

Multiply the lowest Denomination by the Multiplier, divide the Product by as many of the lowest Denomination as make *one* of the next superior, set down underneath the Remainder, if any; carry the Quotient to the Product of the Multiplier and the next superior Denomination, divide their Sum by as many of that same Denomination as make *one* of the next Superior, setting down the Remainder, if any, and carrying the Quotient to the Product of the Multiplier and the next superior Denomination, &c. till the whole is finished.

I. Of M O N E Y.

Example.

1. Multiply £ 7 : 19 : 10½ by 7.

$$\begin{array}{r} 7 \\ \hline \text{£ } 55 : 19 : 3\frac{1}{4} \end{array} \text{ Answer.}$$

Place the Multiplier 7, under the Place of Farthings.

$$\begin{array}{r} \text{Far.} \quad \text{Far.} \\ 1. \quad 3 \times 7 = 21 \\ \text{Far.} \quad \text{d.} \\ 21 \div 4 = 5\frac{1}{4} \end{array}$$

$$\begin{array}{r} \text{d.} \quad \text{d.} \\ 2. \quad 10 \times 7 = 70 \\ \text{d.} \quad \text{d.} \quad \text{d.} \\ 70 + 5 = 75 \\ \text{d.} \quad \text{s.} \quad \text{d.} \\ 75 \div 12 = 6 : 3 \end{array}$$

$$\begin{array}{r} \text{s.} \quad \text{s.} \\ 3. \quad 19 \times 7 = 133 \\ \text{s.} \quad \text{s.} \quad \text{s.} \\ 133 + 6 = 139 \\ \text{s.} \quad \text{£} \quad \text{s.} \\ 139 \div 20 = 6 : 19 \end{array}$$

1. Multiply 3 Farthings by 7, divide the Product 21 by 4, [for 4 Farthings make 1 Penny] the Quotient will be 5 Pence, the Remainder 1 Farthing must be set down in the Place of Farthings.

2. Multiply 10 Pence by 7, to the Product 70 add 5, [the Quotient above] divide the Sum 75 Pence by 12 [for 12 Pence make 1 Shilling] the Quotient will be 6 Shillings, and the Remainder 3 Pence must be set down in the Place of Pence.

3. Multiply 19 Shillings by 7, to the Product 133 add 6 Shillings, [the Quotient above] divide the Sum 139 Shillings by 20, [for 20 Shillings make 1 Pound] the Quotient will be 6 Pound, the Remainder 19 Shillings must be set down in the Place of Shillings.

C

4. Multiply

10 *Multiplication of Money.*

PRAC

$$\begin{array}{r} \text{£} \quad \text{£} \\ 4. \quad 7 \times 7 = 49 \\ \text{£} \quad \text{£} \\ 49 + 6 = 55 \\ \hline \end{array}$$

4. Multiply 7 Pounds by 7, to the Product 49 add 6, [the Quotient above] the Sum will be 55 Pounds, set down 55 in the Place of Pounds, observing always to place Units under Units, Tens under Tens, &c.

2. Multiply £ 6 : 17 : 11½ by 2.

$$\begin{array}{r} \text{£} \quad \text{s.} \quad \text{d.} \\ 6 : 17 : 11\frac{1}{2} \\ \hline \end{array}$$

$$\text{£} \quad \text{s.} \quad \text{d.} \\ 13 : 15 : 11\frac{1}{2} \text{ Answer.}$$

8. Multiply £ 8 : 17 : 6 by 8.

$$\begin{array}{r} \text{£} \quad \text{s.} \quad \text{d.} \\ 8 : 17 : 6 \\ \hline \end{array}$$

$$\text{£} \quad \text{s.} \quad \text{d.} \\ 71 : - : - \text{ Answer.}$$

3. How much is 3 times 17s. 9d?

$$\begin{array}{r} \text{s.} \quad \text{d.} \\ 17 : 9 \\ \hline \end{array}$$

$$\text{£} \quad \text{s.} \quad \text{d.} \\ 2 : 13 : 3 \text{ Answer.}$$

4. At 7s. 3d. ½ Yard, what will

4 Yards cost?

$$\begin{array}{r} \text{s.} \quad \text{d.} \\ 7 : 3\frac{1}{2} \\ \hline \end{array}$$

$$\text{£} \quad \text{s.} \quad \text{d.} \\ 1 : 9 : - \text{ Answer.}$$

5. What will 5 Lottery Tickets cost, at £ 10 : 8 : 7 each?

$$\begin{array}{r} \text{£} \quad \text{s.} \quad \text{d.} \\ 10 : 8 : 7 \\ \hline \end{array}$$

$$\text{£} \quad \text{s.} \quad \text{d.} \\ 52 : 2 : 11 \text{ Answer.}$$

6. How much is 6 times 17s. 10d?

$$\begin{array}{r} \text{s.} \quad \text{d.} \\ 17 : 10 \\ \hline \end{array}$$

$$\text{£} \quad \text{s.} \quad \text{d.} \\ 5 : 7 : - \text{ Answer.}$$

7. What is the Product of 19s. 11½d. multiplied by 7?

$$\begin{array}{r} \text{s.} \quad \text{d.} \\ 19 : 11\frac{1}{2} \\ \hline \end{array}$$

$$\text{£} \quad \text{s.} \quad \text{d.} \\ 136 : 19 : 10\frac{1}{2} \text{ Answer.}$$

9. What will 9 Ells cost, at 1s. 7½d. ½ Ell?

$$\begin{array}{r} \text{s.} \quad \text{d.} \\ 1 : 7\frac{1}{2} \\ \hline \end{array}$$

$$\text{s.} \quad \text{d.} \\ 14 : 5\frac{1}{2} \text{ Answer.}$$

10. At £ 1 : 17 : 4½ ½ C. what will 10 C. cost?

$$\begin{array}{r} \text{£} \quad \text{s.} \quad \text{d.} \\ 1 : 17 : 4\frac{1}{2} \\ \hline \end{array}$$

$$\text{£} \quad \text{s.} \quad \text{d.} \\ 18 : 13 : 6\frac{1}{2} \text{ Answer.}$$

11. At 1s. 7½d. ½ Day, what must be paid for 11 Days Work?

$$\begin{array}{r} \text{s.} \quad \text{d.} \\ 1 : 7\frac{1}{2} \\ \hline \end{array}$$

$$\text{s.} \quad \text{d.} \\ 18 : 1\frac{1}{2} \text{ Answer.}$$

12. At £ 3 : 17 : 8½ ½ C. what will 12 C. cost?

$$\begin{array}{r} \text{£} \quad \text{s.} \quad \text{d.} \\ 3 : 17 : 8\frac{1}{2} \\ \hline \end{array}$$

$$\text{£} \quad \text{s.} \quad \text{d.} \\ 46 : 12 : 9 \text{ Answer.}$$

13. If

TICE.

Multiplication of Cloth Measure. 11

If the given Quantity is 13.

Rule. Multiply the Price by 12, and add the Price of 1 to it, the Sum will be the Answer.

Example.

13. What cost 13 C. at £ 3 : 17 : 6½ *pp* C.?

£ 3 : 17 : 6½ the Price of 1 C.

12

46 : 10 : 3 the Price of 12 } Add.
3 : 17 : 6½ the Price of 1 }

£ 50 : 7 : 9½ the Price of 13

Examples for the Learner's Practice.

Answer.

What cost 2 C. at 15s. 9½d. *pp* C. — — — £ 1 : 11 : 7½

At 5s. 9d. *pp* lb. what cost 3 lb. — — — — : 17 : 3

What is the Price of 4 Yards, at 17s. 9d. *pp* Yard, — 3 : 11 : —

What is the Product of £ 1 : 17 : 9½, multiplied by 5? — 9 : 9 : —½

Multiply £ 871 : 17 : 11½ by 6. — — — 5231 : 7 : 7½

How much is 7 times £ 870 : 17 : 11½? — — — 6096 : 5 : 10½

At £ 3 : 17 : 11½ *pp* Yard, what cost 8 Yards? — 31 : 3 : 10

What must be given for 9 Ells, at 3s. 2½d. *pp* Ell? 1 : 8 : 8½

How much is 10 Moidores, each £ 1 : 7? — — — 13 : 10 : —

How much is 11 Marks, each 13s. 4d.? — — — 7 : 6 : 8

What cost 12 Pieces of Linnen, at £ 4 : 17 : 8 each? — 58 : 12 : —

What cost 13 Yards, at 1s. 7d. *pp* Yard? — — — 1 : — : 7

II. CLOTH MEASURE.

Example.

Yards. Qrs. Nails.

14. Multiply 17 : 3 : 3 by 11.

11

Yards 197 : 1 : 1 *Answer.*

Na.

Na.

1. 3 × 11 = 33

Nails. Qrs. Na.

33 ÷ 4 = 8 : 1

1. Multiply 3 Nails by 11, divide the Product 33 by 4 [for 4 Nails make 1 Quarter] the Quotient will be 8 Quarters; the Remainder 1 Nail must be set down in the Place of Nails.

C 2

2. Multiply

12 Multiplication of Cloth Measure.

PRACT.

$$\begin{array}{r} \text{Qrs.} \quad \text{Qrs.} \\ 2. \quad 3 \times 11 = 33 \\ \text{Qrs.} \quad \text{Qrs.} \quad \text{Qrs.} \\ 33 + 8 = 41 \\ \text{Qrs.} \quad \text{Yds.} \quad \text{Qrs.} \\ 41 \div 4 = 10 : 1 \end{array}$$

$$\begin{array}{r} \text{Yds.} \quad \text{Yds.} \\ 3. \quad 17 \times 11 = 187 \\ \text{Yds.} \quad \text{Yds.} \quad \text{Yds.} \\ 187 + 10 = 197 \end{array}$$

2. Multiply 3 Quarters by 11, to the Product 33 add 8 [the Quotient above] divide the Sum 41 Quarters by 4 [for 4 Quarters make 1 Yard] the Quotient will be 10 Yards; the Remainder 1 Quarter must be set down in the Place of Quarters.

3. Multiply 17 Yards by 11, to the Product 187 add 10 [the Quotient above] the Sum will be 197 Yards, set down 197 in the Place of Yards, and the Work will be finished.

$$\begin{array}{r} \text{Ells Eng.} \quad \text{Qrs.} \quad \text{Nails.} \\ 15. \text{ Multiply } 171 : 3 : 3 \text{ by } 9 \\ \text{Ells Eng.} \quad \text{Qrs.} \quad \text{Nails.} \\ 171 : 3 : 3 \\ \hline 1545 : 3 : 3 \text{ Answer.} \end{array}$$

$$\begin{array}{r} \text{Nails.} \quad \text{Nails.} \\ 1. \quad 3 \times 9 = 27 \\ \text{Nails.} \quad \text{Qrs.} \quad \text{Nails.} \\ 27 \div 4 = 6 : 3 \end{array}$$

$$\begin{array}{r} \text{Qrs.} \quad \text{Qrs.} \\ 2. \quad 3 \times 9 = 27 \\ \text{Qrs.} \quad \text{Qrs.} \quad \text{Qrs.} \\ 27 + 6 = 33 \\ \text{Qrs.} \quad \text{Ells.} \quad \text{Qrs.} \\ 33 \div 5 = 6 : 3 \end{array}$$

$$\begin{array}{r} \text{Ells.} \quad \text{Ells.} \\ 3. \quad 171 \times 9 = 1539 \\ \text{Ells.} \quad \text{Ells.} \\ 1539 + 6 = 1545 \end{array}$$

$$\begin{array}{r} 16. \text{ How many Ells Flemish are} \\ \text{contained in 12 Pieces, each} \\ \text{Ells Fl.} \quad \text{Qrs.} \quad \text{Nails.} \\ 17 : 2 : 3 \\ \hline 215 : - : - \text{ Answer.} \end{array}$$

$$\begin{array}{r} \text{Nails.} \quad \text{Nails.} \\ 1. \quad 3 \times 12 = 36 \\ \text{Nails.} \quad \text{Qrs.} \\ 36 \div 4 = 9 \end{array}$$

$$\begin{array}{r} \text{Qrs.} \quad \text{Qrs.} \\ 2. \quad 2 \times 12 = 24 \\ \text{Qrs.} \quad \text{Qrs.} \quad \text{Qrs.} \\ 24 + 9 = 33 \\ \text{Qrs.} \quad \text{Ells.} \\ 33 \div 3 = 11 \\ \text{Ells.} \quad \text{Ells.} \\ 3. \quad 17 \times 12 = 204 \\ \text{Ells.} \quad \text{Ells.} \quad \text{Ells.} \\ 204 + 11 = 215 \end{array}$$

$$\begin{array}{r} \text{Ells Fr.} \quad \text{Qrs.} \quad \text{Na.} \\ 17. \text{ In 10 Pieces each } 17 : 5 : 3 \\ \text{how many French Ells?} \\ \text{Ells Fr.} \quad \text{Qrs.} \quad \text{Nails.} \\ 17 : 5 : 3 \\ \hline 179 : 3 : 2 \text{ Answer.} \end{array}$$

$$\begin{array}{r} \text{Nails.} \quad \text{Nails.} \\ 1. \quad 3 \times 10 = 30 \\ \text{Nails.} \quad \text{Qrs.} \quad \text{Nails.} \\ 30 \div 4 = 7 : 2 \end{array}$$

$$\begin{array}{r} \text{Qrs.} \quad \text{Qrs.} \\ 2. \quad 5 \times 10 = 50 \\ \text{Qrs.} \quad \text{Qrs.} \quad \text{Qrs.} \\ 50 + 7 = 57 \\ \text{Qrs.} \quad \text{Ells.} \quad \text{Qrs.} \\ 57 \div 6 = 9 : 3 \end{array}$$

$$\begin{array}{r} \text{Ells.} \quad \text{Ells.} \\ 3. \quad 17 \times 10 = 170 \\ \text{Ells.} \quad \text{Ells.} \quad \text{Ells.} \\ 170 + 9 = 179 \end{array}$$

TICE.

Multiplication of Troy Weight. 13

Yards. Qrs. Nails.
18. In 13 Pieces each 27 : 1 : 3 how many Yards?

Yards. Qrs. Nails.

27 : 1 : 3

12

329 : 1 : —

27 : 1 : 3

Yards 356 : 2 : 3 Answer.

Examples for the Learner's Practice.

Yards. Qrs. Nails.	Answer.
Multiply 37 : 3 : 3, by 2.	Yards. Qrs. Na.
	75 : 3 : 2

Yards. Qrs. Nails.	Yards. Qrs. Na.
How much is 3 times 307 : 3 : 3?	923 : 3 : 1

Qrs. Nail.	Yards. Qrs. Na.
What is the Product of 3 : 1, multiplied by 4?	3 : 1 : —

Ells Eng. Qrs. Nails.	Ells Eng. Qrs. Na.
How much is 5 times 179 : 4 : 3?	899 : 3 : 3

Ells Fl. Qrs. Nails.	Ells Fl. Qrs. Na.
In 6 Pieces of Tapestry each 37 : 2 : 3, how many	} 227 : 1 : 2
Ells Flemish?	

Ells Fr. Qrs. Nails.	Ells Fr. Qrs. Na.
Multiply 49 : 5 : 3 by 7.	349 : 4 : 1

Ells Fl. Qrs. Nail.	Ells Fl. Qrs. Na.
In 8 Pieces of Cloth each 54 : 2 : 1, how many	} 438 : — : —
Ells Flemish?	

Ells Fr. Qrs. Nails.	Ells Fr. Qrs. Na.
How much is 13 times 14 : 5 : 3?	194 : 2 : 3

III. TROY WEIGHT.

Example.

19. What is the Weight of 7 Tankards, each weighing

lb. oz. dwts. gr.

3 : 11 : 19 : 23

7

lb. 27 : 11 : 19 : 17 Answer.

gr. gr.
1. 23 × 7 = 161
24) 161 (6 dwts.
144
17 gr.

1. Multiply 23 Grains by 7, divide the Product 161 by 24 [for 24 Grains make one Pennyweight] the Quotient will be 6 Pennyweights, the remainder 17 Grains must be set down in the Place of Grains.

2. Multiply

74 *Multiplication of Troy Weights.*

PRAC.

$$\begin{array}{r} \text{dwt.} \quad \text{dwt.} \\ 2. \quad 19 \times 7 = 133 \\ \text{dwt.} \quad \text{dwt.} \quad \text{dwt.} \\ 133 + 6 = 139 \\ \text{dwt.} \quad \text{oz. dwt.} \\ 139 \div 20 = 6 : 19 \end{array}$$

2. Multiply 19 Pennyweights by 7, to the Product 133 add 6 [the Quotient above] divide the Sum 139 Pennyweights by 20 [for 20 Pennyweights make 1 Ounce] the Quotient will be 6 Ounces, the Remainder 19 Pennyweights must be set down in the Place of Pennyweights.

$$\begin{array}{r} \text{oz.} \quad \text{oz.} \\ 3. \quad 11 \times 7 = 77 \\ \text{oz.} \quad \text{oz.} \quad \text{oz.} \\ 77 + 6 = 83 \\ \text{oz.} \quad \text{lb.} \quad \text{oz.} \\ 83 \div 12 = 6 : 11 \end{array}$$

3. Multiply 11 Ounces by 7, to the Product 77 add 6 [the Quotient above] divide the Sum 83 Ounces by 12 [for 12 Ounces make 1 Pound] the Quotient will be 6 Pounds, the Remainder 11 Ounces must be set down in the Place of Ounces.

$$\begin{array}{r} \text{lb.} \quad \text{lb.} \\ 4. \quad 3 \times 7 = 21 \\ \text{lb.} \quad \text{lb.} \quad \text{lb.} \\ 21 + 6 = 27 \end{array}$$

4. Multiply 3 Pound by 7, to the Product 21, add 6 [the Quotient above] the Sum will be 27 Pounds, set 27 down in the Place of Pounds, and the Work will be finished.

20. How much is 10 times

$$\begin{array}{r} \text{oz.} \quad \text{dwt.} \quad \text{gr.} \\ 47 : 17 : 23 \\ \hline 10 \end{array}$$

oz. 478 : 19 : 14 Answer.

$$\begin{array}{r} \text{gr.} \quad \text{gr.} \\ 1. \quad 23 \times 10 = 230 \\ 24)230(9 \text{ dwt.} \\ \underline{216} \\ 14 \text{ gr.} \end{array}$$

$$\begin{array}{r} \text{dwt.} \quad \text{dwt.} \\ 2. \quad 17 \times 10 = 170 \\ \text{dwt.} \quad \text{dwt.} \quad \text{dwt.} \\ 170 + 9 = 179 \\ \text{dwt.} \quad \text{oz.} \quad \text{dwt.} \\ 179 \div 20 = 8 : 19 \end{array}$$

$$\begin{array}{r} \text{oz.} \quad \text{oz.} \\ 3. \quad 47 \times 10 = 470 \\ \text{oz.} \quad \text{oz.} \quad \text{oz.} \\ 470 \times 8 = 478 \end{array}$$

$$\begin{array}{r} \text{oz.} \quad \text{dwt.} \quad \text{gr.} \\ 21. \text{ Multiply } 17 : 17 : 17 \text{ by } 12. \\ \text{oz.} \quad \text{dwt.} \quad \text{gr.} \\ 17 : 17 : 17 \\ \hline 12 \end{array}$$

oz. 214 : 12 : 12 Answer.

$$\begin{array}{r} \text{gr.} \quad \text{gr.} \\ 1. \quad 17 \times 12 = 204 \\ 24)204(8 \text{ dwt.} \\ \underline{192} \\ 12 \text{ gr.} \end{array}$$

$$\begin{array}{r} \text{dwt.} \quad \text{dwt.} \\ 2. \quad 17 \times 12 = 204 \\ \text{dwt.} \quad \text{dwt.} \quad \text{dwt.} \\ 204 + 8 = 212 \\ \text{dwt.} \quad \text{oz.} \quad \text{dwt.} \\ 212 \div 20 = 10 : 12 \end{array}$$

$$\begin{array}{r} \text{oz.} \quad \text{oz.} \\ 3. \quad 17 \times 12 = 204 \\ \text{oz.} \quad \text{oz.} \quad \text{oz.} \\ 204 + 10 = 214 \end{array}$$

Examples

Examples for the Learner's Practice.

ox. dwts. gr. Answer.
 Multiply $37 : 13 : 23$ by 2. $\underline{\hspace{1cm}} \quad \underline{\hspace{1cm}} \quad \underline{\hspace{1cm}}$ $75 : 7 : 22$

ox. dwts. gr. ox. dwts. gr.
 In 3 Ingots of Silver each $21 : 17 : 23$, how many Ounces? $65 : 13 : 21$

ox. dwts. gr. ox. dwts. gr.
 What is the Product of $17 : \text{—} : 16$, multiplied by 4? $68 : 2 : 16$

dwts. gr. ox. dwts. gr.
 How much is 5 times $13 : 17$? $\underline{\hspace{1cm}} \quad \underline{\hspace{1cm}} \quad \underline{\hspace{1cm}}$ $3 : 8 : 13$

ox. dwts. gr. ox. dwts. gr.
 In 6 Silver Spoons each $1 : 14 : 13$, how many Ounces? $10 : 7 : 6$

ox. dwts. gr. ox. dwts. gr.
 What is the Weight of 7 Silver Sauff Boxes, each $3 \text{ oz. } 1 \text{ dwt. } 21 \text{ gr.}$? $\underline{\hspace{1cm}} \quad \underline{\hspace{1cm}} \quad \underline{\hspace{1cm}}$ $21 : 13 : 3$

IV. AVOIRDUPOISE WEIGHT.

Example.

22. What is the Weight of 9 Hogheads, each weighing $17 : 3 : 17$

C. Qrs. lb.

$17 : 3 : 17$

9

C. $161 : \text{—} : 13$ Answer.

lb. lb.
 1. $17 \times 9 = 153$
 $28 \overline{)153} (5 \text{ Qrs.}$
 $\underline{140}$
 13 lb.

1. Multiply 17 Pounds by 9, divide the Product 153 by 28 [for 28 Pounds make 1 Quarter] the Quotient will be 5 Quarters, the Remainder 13 must be set down in the Place of Pounds.

Qrs. Qrs.
 2. $3 \times 9 = 27$
 Qrs. Qrs. Qrs.
 $27 + 5 = 32$
 Qrs. C.
 $32 \div 4 = 8$

2. Multiply 3 Quarters by 9, to the Product 27 add 5 [the Quotient above] divide the Sum 32 by 4 [for 4 Quarters make 1 Hundred] the Quotient will be 8 Hundred, which must be carried to the Place of Hundreds.

C. C.
 3. $17 \times 9 = 153$
 C. C. C.
 $153 + 8 = 161$

The Rest is performed as in Multiplication of Integers or whole Numbers.

23. How much is 7 times

C. *Qrs.* lb.

17 : 3 : 27

7

C. 125 : 3 : 21 *Answer.*

lb. lb.

1. 27 × 7 = 189

28)189(6 *Qrs.*

168

21 lb.

Qrs. *Qrs.*

2. 3 × 7 = 21

Qrs. *Qrs.* *Qrs.*

21 + 6 = 27

Qrs. C. *Qrs.*

27 ÷ 4 = 6 : 3

C. C.

3. 17 × 7 = 119

C. C. C.

119 + 6 = 125

Qrs. lb.

24. Multiply 3 : 19 by 12.

Qrs. lb.

3 : 19

12

C. 11 : — : 4 *Answer.*

lb. lb.

1. 19 × 12 = 228

28)228(8 *Qrs.*

224

4 lb.

Qrs. *Qrs.*

2. 3 × 12 = 36

Qrs. *Qrs.* *Qrs.*

36 + 8 = 44

Qrs. C.

44 ÷ 4 = 11

C. *Qrs.* lb.

25. Multiply 4 : 3 : 17 by 7.

C. *Qrs.* lb.

4 : 3 : 17

7

C. 34 : 1 : 7 *Answer.*

lb. lb.

1. 17 × 7 = 119

28)119(4 *Qrs.*

112

7 lb.

Qrs. *Qrs.*

2. 3 × 7 = 21

Qrs. *Qrs.* *Qrs.*

21 + 4 = 25

Qrs. C. *Qrs.*

25 ÷ 4 = 6 : 1

C. C.

3. 4 × 7 = 28

C. C. C.

28 + 6 = 34

C. *Qrs.* lb.

26. Multiply 12 : — : 4 by 9.

C. *Qrs.* lb.

12 : — : 4

9

C. 108 : 1 : 8 *Answer.*

lb. lb.

1. 4 × 9 = 36

28)36(1 *Qr.*

28

8 lb.

C. C.

2. 12 × 9 = 108

27. How much is 7 times 17 : 15 : 13?

$$\begin{array}{r} \text{lb. oz. dr.} \\ 17 : 15 : 13 \\ \hline 7 \\ \hline \text{lb. } 125 : 14 : 11 \text{ Answer.} \end{array}$$

$$\begin{array}{r} \text{dr.} \quad \text{dr.} \\ 1. \quad 13 \times 7 = 91 \\ 16)91(5 \text{ oz.} \\ 80 \\ \hline 11 \text{ dr.} \end{array}$$

1. Multiply 13 Drams by 7, divide the Product 91 by 16 [for 16 Drams make 1 Ounce] the Quotient will be 5 Ounces, the Remainder 11 must be set down in the Place of Drams.

$$\begin{array}{r} \text{oz.} \quad \text{oz.} \\ 2. \quad 15 \times 7 = 105 \\ \text{oz.} \quad \text{oz.} \quad \text{oz.} \\ 105 + 5 = 110 \\ 16)110(6 \text{ lb.} \\ 96 \\ \hline 14 \text{ oz.} \end{array}$$

2. Multiply 15 Ounces by 7, to the Product 105 add 5 [the Quotient above] divide the Sum 110 by 16 [for 16 Ounces make 1 Pound] the Quotient will be 6 Pounds, the Remainder 14 must be set down in the Place of Ounces.

$$\begin{array}{r} \text{lb.} \quad \text{lb.} \\ 3. \quad 17 \times 7 = 119 \\ \text{lb.} \quad \text{lb.} \quad \text{lb.} \\ 119 + 6 = 125 \end{array}$$

3. The Rest is performed as in Multiplication of Integers.

$$\begin{array}{r} 28)125(4 \text{ Qrs.} \\ 112 \quad 4 \\ \hline 13 \text{ lb. } 1 \text{ C.} \end{array}$$

But, if the Answer is required in Hundreds, divide the 125 Pounds by 28, the Quotient will be 4 Quarters or 1 Hundred; the Remainder will be 13 Pounds. Then the Answer will be 1 C. — Qrs. 13 lb. 14 oz. 11 dr.

28. How much is 9 times 7 : 13 : 15

$$\begin{array}{r} \text{lb. oz. dr.} \\ 7 : 13 : 15 \\ 9 \end{array}$$

Qrs. 2 : 14 : 13 : 7 Answer.

$$\begin{array}{r} \text{dr.} \quad \text{dr.} \\ 1. \quad 15 \times 9 = 135 \\ 16)135(8 \text{ oz.} \\ 128 \\ \hline 7 \text{ dr.} \end{array}$$

$$\begin{array}{r} \text{oz.} \quad \text{oz.} \\ 2. \quad 13 \times 9 = 117 \\ \text{oz.} \quad \text{oz.} \quad \text{oz.} \\ 117 + 8 = 125 \\ 16)125(7 \text{ lb.} \\ 112 \\ \hline 13 \text{ oz.} \end{array}$$

$$\begin{array}{r} \text{lb.} \quad \text{lb.} \\ 3. \quad 7 \times 9 = 63 \\ \text{lb.} \quad \text{lb.} \quad \text{lb.} \\ 63 + 7 = 70 \\ 28)70(2 \text{ Qrs.} \\ 56 \\ \hline 14 \text{ lb.} \end{array}$$

29. Multiply

29. Multiply 15 : 13 by 12.

$$\begin{array}{r} \text{oz. dr.} \\ 15 : 13 \\ \hline 12 \end{array}$$

lb. 11 : 13 : 12 Answer.

$$\begin{array}{r} \text{dr. dr.} \\ 1. \quad 13 \times 12 = 156 \\ 16)156(9 \text{ oz.} \\ \hline 144 \end{array}$$

12 dr.

$$\begin{array}{r} \text{oz. oz.} \\ 2. \quad 15 \times 12 = 180 \\ \text{oz. oz. oz.} \\ 180 + 9 = 189 \\ 16)189(11 \text{ lb.} \\ \hline 16 \end{array}$$

$$\begin{array}{r} 29 \\ 16 \\ \hline 13 \text{ oz.} \end{array}$$

30. Multiply 17 : 9 by 7.

$$\begin{array}{r} \text{lb. oz.} \\ 17 : 9 \\ \hline 7 \end{array}$$

C. 1 : — : 10 : 15 Answer.

$$\begin{array}{r} \text{oz. oz.} \\ 1. \quad 9 \times 7 = 63 \\ 16)63(3 \text{ lb.} \\ \hline 48 \\ \hline 15 \text{ oz.} \end{array}$$

$$\begin{array}{r} \text{lb. lb.} \\ 2. \quad 17 \times 7 = 119 \\ \text{lb. lb. lb.} \\ 119 + 3 = 122 \\ 28)122(4 \text{ Qrs.} \\ \hline 112 \\ \hline 10 \text{ lb.} \end{array}$$

$$\begin{array}{r} \text{Qrs. C.} \\ 3. \quad 4 \div 4 = 1 \end{array}$$

31. How much is 4 times

$$\begin{array}{r} \text{lb. oz.} \\ 23 : 13 \\ \hline 4 \end{array}$$

Qrs. 3 : 11 : 4 Answer.

$$\begin{array}{r} \text{oz. oz.} \\ 1. \quad 13 \times 4 = 52 \\ 16)52(3 \text{ lb.} \\ \hline 48 \\ \hline 4 \text{ oz.} \end{array}$$

$$\begin{array}{r} \text{lb. lb.} \\ 2. \quad 23 \times 4 = 92 \\ \text{lb. lb. lb.} \\ 92 + 3 = 95 \\ 28)95(3 \text{ Qrs.} \\ \hline 84 \\ \hline 11 \text{ lb.} \end{array}$$

Examples for the Learner's Practice.

Multiply C. Qrs. lb.

13 : — : 17 by 2.

Answer.
C. Qrs. lb.
26 : 1 : 6

How much is 3 times 7 : 3 : 17.

C. Qrs. lb.
23 : 2 : 23

What is the Product of 1 : 1 : 21, multiplied by 4?

C. Qrs. lb.
5 : 3 : —

What

				<i>Answer.</i>
What is the Weight of 5 Hogheads each	C. Qrs. lb.	C. Qrs. lb.		
13 : 3 : 17?	69 : 2 : 1			
lb. oz.		Qrs. lb. oz.		
Multiply 17 : 3 by 6.	— — —	3 : 19 : 2		
What is the Weight of 7 Parcels, each	lb. oz.	Qrs. lb. oz.		
13 : 11?	— — —	3 : 11 : 13		
How much is 8 times	lb. oz.	C. Qrs. lb. oz.		
15 : 13?	— — —	1 : — : 14 : 8		
What is the Product of 23 : 15, multiplied by 9?	lb. oz.	C. Qrs. lb. oz.		
— — —	— — —	1 : 3 : 19 : 7		
What is the Weight of 10 Sugar Loaves, each	lb. oz. C. Qrs. lb. oz.			
14 : 13?	1 : 1 : 8 : 2			
Multiply 13 : 10 by 11.	lb. oz. C. Qrs. lb. oz.			
— — —	1 : 1 : 9 : 14			
There are 12 Parcels each weight 17 : 14, what	lb. oz. C. Qrs. lb. oz.			
is the Weight of them?	— — —	1 : 3 : 18 : 8		
There are 7 Parcels of Sugar each 19 : 14 : 15, } what is the Weight of them?	lb. oz. dr. C. Qrs. lb. oz. dr.			
— — —	1 : — : 27 : 8 : 9			
What is the Product of 6 : 14 : 11, multiplied by 10?	lb. oz. dr. Qrs. lb. oz. dr.			
— — —	2 : 13 : 2 : 14			
How much is 12 times 14 : 13?	oz. dr. lb. oz. dr.			
— — —	11 : 1 : 12			

M U L T I P L I C A T I O N

Of Money, Weight, and Measure.

II. **W**HEN the Multiplier is above 13.

R U L E.

Find two Numbers whose Product is equal to the given Quantity.

Multiply the given Price, Weight, Measure, &c. by one of these Numbers, then multiplying the Product by the other Number; this last Product will be the Answer.

But if you cannot find two such Numbers.

Take two Numbers whose Product is the nearest to the given Quantity; multiply them as above. Then

If the Product of the two Numbers be less than the given Quantity.

Add so many times the Price of an Integer as the Remainder requires.

If their Product is more than the given Quantity.

Subtract so many times the Price of an Integer as is the Excess above the given Quantity.

Examples.

32. What cost 14 Yards of Linnen, at 2s. 7½d. per Yard?

	s.	d.	Yards.	
	2	7½	1	} Multiply.
		7	7	
<i>Multipliers.</i>				
7 × 2 = 14	18	2½	7	} Multiply.
2 × 7 = 14		2	2	
	£ 1	16	5½	the Price of 14 Yards.

Or if you multiply
2s. 7½d. by 2, and
the Product by 7,
will give the same
Answer as above;
and may serve as a
Proof to the Work.

	s.	d.	Yards.	
	2	7½	1	} Multiply.
		2	2	
	5	2½	2	} Multiply.
		7	7	
	£ 1	16	5½	the Price of 14 Yards.

This and the following Examples may be wrought as many different Ways as there are different Multipliers.

33. At £ 7 : 18 : 6 per C. of Sugar, what cost 15 C.?

	£.	s.	d.	C.	
	7	18	6	1	} Multiply.
			3	3	
<i>Multipliers.</i>					
3 × 5 = 15	23	15	6	3	} Multiply.
5 × 3 = 15			5	5	
	£ 118	17	6	the Price of 15 C.	

Or you may perform the Operation by the other two Multipliers, viz. 5 and 3.

	£.	s.	d.	C.	
	7	18	6	1	} Multiply.
			5	5	
	39	12	6	5	} Multiply.
			3	3	
	£ 118	17	6	the Price of 15 C.	

34. What

TICE.

When the Multiplier is 16, 17, 18.

21

34. What cost 16 Ounces of Silver, at 5s. 9½d. ⷍ Ounce?

	s.	d.	
	5	9½	
		4	
Multipliers.			
4 × 4 = 16			oz.
2 × 8 = 16	1	3	3 the Price of 4
8 × 2 = 16		4	4 } Multiply.
	£ 4	13	— the Price of 16 oz.

35. What is the Price of 17 Quarters of Oats, at 15s. 9d. ⷍ Quarter.

	s.	d.	
	15	9	
		4	
Multipliers.			
4 × 4 + 1 = 17			Qrs.
2 × 8 + 1 = 17	3	3	— the Price of 4
8 × 2 + 1 = 17		4	4 } Multiply.
	12	12	— the Price of 16
	—	15	9 the Price of 1
			} Add.
	£ 13	7	9 the Price of 17 Qrs.

		O R,	
	s.	d.	
	15	9	
		3	
Multipliers.			
3 × 6 — 1 = 17			Qrs.
6 × 3 — 1 = 17	2	7	3 the Price of 3
2 × 9 — 1 = 17		6	6 } Multiply.
9 × 2 — 1 = 17			
	14	3	6 the Price of 18
	—	15	9 the Price of 1
			} Subtract.
	£ 13	7	9 the Price of 17 Qrs.

36. What is the Value of 18 Moidores, each £ 1 : 7 ?

	£	s.	
	1	7	
		3	
Multipliers.			
3 × 6 = 18			Moidores.
6 × 3 = 18	4	1	the Value of 3
2 × 9 = 18		6	6 } Multiply.
9 × 2 = 18			
	£ 24	6	the Value of 18 Moidores.

37. Find

37. Find the Value of 19 Bushels of Coals, at
- $11\frac{1}{2}d.$
- $\frac{1}{2}d.$
- Bushel.

<i>Multipliers.</i>	$11\frac{1}{2}d.$	
$3 \times 6 + 1 = 19$	<u>3</u>	<i>Bushels.</i>
$6 \times 3 + 1 = 19$	$2 : 11\frac{1}{2} \text{ the Value of } 3$	} <i>Multiply.</i>
$2 \times 9 + 1 = 19$	<u>6</u>	
$9 \times 2 + 1 = 19$	$17 : 7\frac{1}{2} \text{ the Value of } 18$	} <i>Add.</i>
	$— : 11\frac{1}{2} \text{ the Value of } 1$	
	$s. 18 : 7\frac{1}{2} \text{ the Value of } 19 \text{ Bushels.}$	

O R,

<i>Multipliers.</i>	$11\frac{1}{2}d.$	
$4 \times 5 - 1 = 19$	<u>5</u>	<i>Bushels.</i>
$5 \times 4 - 1 = 19$	$4 : 10\frac{1}{2} \text{ the Value of } 5$	} <i>Multiply.</i>
$10 \times 2 - 1 = 19$	<u>4</u>	
$2 \times 10 - 1 = 19$	$19 : 7 \text{ the Value of } 20$	} <i>Subtract.</i>
	$— : 11\frac{1}{2} \text{ the Value of } 1$	
	$s. 18 : 7\frac{1}{2} \text{ the Value of } 19 \text{ Bushels.}$	

38. What Quantity of Cloth is there in 20 Pieces, each containing Yards. Qrs. Nails.

$31 : 3 : 3?$

<i>Multipliers.</i>	<i>Yards. Qrs. Nails.</i>
$4 \times 5 = 20$	$31 : 3 : 3$
$5 \times 4 = 20$	<u>4</u>
$10 \times 2 = 20$	$127 : 3 : —$
$2 \times 10 = 20$	<u>5</u>
	<i>Yards 638 : 3 : — Answer.</i>

Ells Eng. Qrs. Nails.

39. In 21 Pieces of Linnen each 35 : 4 : 3, what Quantity do they contain?

<i>Multipliers.</i>	<i>Ells Eng. Qrs. Nails.</i>
$3 \times 7 = 21$	$35 : 4 : 3$
$7 \times 3 = 21$	<u>3</u>
	$107 : 4 : 1$
	<u>7</u>
	<i>Ells Eng. 754 : 4 : 3 Answer.</i>

40. What

TICE.

When the Multiplier is 22, 23, 24.

23

40. What is the Weight of 22 Tankards, each $27 : 17 : 21$?

<i>Multipliers.</i>	<i>oz. dwts. gr.</i>
$2 \times 11 = 22$	$27 : 17 : 21$
$11 \times 2 = 22$	$55 : 15 : 18$
	11
	$oz. 613 : 13 : 6$ Answer.

41. What is the Weight of 23 Ingots of Silver, each $4 : 11 : - : 17$?

<i>Multipliers.</i>	<i>lb. oz. dwts. gr.</i>
$2 \times 11 + 1 = 23$	$4 : 11 : - : 17$
$11 \times 2 + 1 = 23$	$9 : 10 : 1 : 10$
	$118 : 2 : 15 : 14$
	$4 : 11 : - : 17$
	$lb. 113 : 1 : 16 : 7$ Answer.

O R,

<i>Multipliers.</i>	<i>lb. oz. dwts. gr.</i>
$4 \times 6 - 1 = 23$	$4 : 11 : - : 17$
$6 \times 4 - 1 = 23$	$19 : 8 : 2 : 20$
$3 \times 8 - 1 = 23$	$118 : - : 17 : -$
$8 \times 3 - 1 = 23$	$4 : 11 : - : 16$
$2 \times 12 - 1 = 23$	$118 : - : 17 : -$
$12 \times 2 - 1 = 23$	$4 : 11 : - : 16$
	$lb. 113 : 1 : 16 : 7$ Answer.

C. Qrs. lb.

42. How much is 24 times $7 : 3 : 27$?

<i>Multipliers.</i>	<i>C. Qrs. lb.</i>
$4 \times 6 = 24$	$7 : 3 : 27$
$6 \times 4 = 24$	$31 : 3 : 24$
$3 \times 8 = 24$	6
$8 \times 3 = 24$	$31 : 3 : 24$
$2 \times 12 = 24$	$31 : 3 : 24$
$12 \times 2 = 24$	$C. 191 : 3 : 4$ Answer.

43. What

43. What is the Weight of 25 Hogheads, each 12 : 3 : 17? *C. Qrs. lb.*

<i>Multipliers.</i>	<i>C. Qrs. lb.</i>
$5 \times 5 = 25$	12 : 3 : 17
	5
	64 : 2 : 1
	5
	C. 322 : 2 : 5 <i>Answer.</i>

44. Multiply 13 : 14 by 26? *lb. oz.*

<i>Multipliers.</i>	<i>lb. oz.</i>
$5 \times 5 + 1 = 26$	13 : 14
	5
	Qrs. 2 : 13 : 6
	5
	3 : — : 10 : 14 } <i>Add.</i>
	13 : 14
	C. 3 : — : 24 : 12 <i>Answer.</i>

O R.

<i>Multipliers.</i>	<i>lb. oz.</i>
$3 \times 9 - 1 = 26$	13 : 14
$9 \times 3 - 1 = 26$	3
	Qrs. 1 : 13 : 10
	9
	3 : 1 : 10 : 10 } <i>Subtract.</i>
	13 : 14
	C. 3 : — : 24 : 12 <i>Answer.</i>

45. How much is 27 times 11 : 13? *lb. oz.*

<i>Multipliers.</i>	<i>lb. oz.</i>
$3 \times 9 = 27$	3
$9 \times 3 = 27$	1 : 7 : 7
	9
	C. 2 : 3 : 10 : 15 <i>Answer.</i>

46. What

TICE.

When the Multiplier is 28, 29, 30.

23

46. What is the Weight of 28 Parcels, each 25 : 7 : 13?

lb. oz. dr.
25 : 7 : 13

Multipliers.
4 × 7 = 28
7 × 4 = 28

$$\begin{array}{r} \text{C. 1 : 2 : 10 : 6 : 11} \\ \hline 4 \\ \hline \text{C. 6 : 1 : 13 : 10 : 12} \end{array}$$

Answer.

47. What is the Product of £ 3 : 17 : 11, multiplied by 29?

£ s. d.
3 : 17 : 11

Multipliers.
4 × 7 + 1 = 29
7 × 4 + 1 = 29

$$\begin{array}{r} 3 : 17 : 11 \\ \hline 15 : 11 : 8 \\ \hline 109 : 1 : 8 \\ \hline 3 : 17 : 11 \end{array}$$

Add.

$$\begin{array}{r} \text{£ 112 : 19 : 7} \end{array}$$

Answer.

O R,

£ s. d.
3 : 17 : 11

Multipliers.
3 × 10 - 1 = 29
10 × 3 - 1 = 29
6 × 5 - 1 = 29
5 × 6 - 1 = 29

$$\begin{array}{r} 3 : 17 : 11 \\ \hline 11 : 13 : 9 \\ \hline 116 : 17 : 6 \\ \hline 3 : 17 : 11 \end{array}$$

Subtract.

$$\begin{array}{r} \text{£ 112 : 19 : 7} \end{array}$$

Answer.

48. What is the Content of 30 Pieces, each 31 : 4 : 3?

Ells Eng. Qrs. Nails.
31 : 4 : 3

Multipliers.
5 × 6 = 30
6 × 5 = 30
10 × 3 = 30
3 × 10 = 30

$$\begin{array}{r} 31 : 4 : 3 \\ \hline 159 : 3 : 3 \\ \hline \end{array}$$

Ells Eng. 958 : 2 : 2

Answer.

E

49. What

49. What is the Weight of 37 small Parcels of Tea, each 13 : 12 ?

		oz.	dr.
		13	12
		<hr/>	
		10	5
		<hr/>	
			3
		<hr/>	
		2rs. 1	2 : 15 : —
		<hr/>	
		13	12
		<hr/>	
		2rs. 1	3 : 12 : 12
		<hr/>	
		Answer.	

50. What is the Product of £ 8 : 17 : 8½, multiplied by 53 ?

		£	s.	d.
		8	17	8½
		<hr/>		
				5
		<hr/>		
		44	8	7½
		<hr/>		
				10
		<hr/>		
		444	6	5½
		<hr/>		
		26	13	2½
		<hr/>		
		£ 470	19	7½
		<hr/>		
		Answer.		

51. How much is 59 times 17 : 3 : 3 ?

		Yards.	Qrs.	Nails.
		17	3	3
		<hr/>		
				12
		<hr/>		
		215	1	—
		<hr/>		
				5
		<hr/>		
		1076	1	—
		<hr/>		
		17	3	3
		<hr/>		
		Yards 1058	1	1
		<hr/>		
		Answer.		

52. What

TICE. When the Multiplier is 96, 100, 103, 117. 37

52. What is the Price of 8 Dozen Pair of Gloves, at 11. 3d. $\frac{1}{2}$ Pair.

s. 1 : 3 d.

12

15 : — the Price of 1 Dozen.

8

£ 6 : — : — the Price of 8 Dozen.

First find the Price of 1 Dozen or 12 Pair, then multiply that Product by 8, will give the Answer.

53. How much is 100 times 3 : 2 : 7?

10

Multipliers.

35 : 2 : 14

10 X 10 = 100

10

C. 356 : 1 : — Answer.

54. Multiply £ 3 : 17 : 8, by 103.

£

s.

d.

3 : 17 : 8

10 : 10 : 10

Multipliers.

10 X 10 + 3 = 103

38 : 16 : 8

10 : 10 : 10

Top Line X 3 : 388 : 86 : 8 } Add.

£ 399 : 19 : 8 Answer.

55. What Quantity of Linnen is contained in 117 Pieces, each Ells Eng. Qrs. Nails.

37 : 4 : 3?

Ells Eng. Qrs. Nails.

37 : 4 : 3

Multipliers.

11 X 10 + 7 = 117

10 X 11 + 7 = 117

OR,

10 X 12 - 3 = 117

12 X 10 - 3 = 117

417 : 2 : 1

10

Top Line X 7 : 4174 : 2 : 2 } Add.

Ells Eng. 4440 : — : 3 Answer.

28

When the Multiplier is 112, 130, 138.

PRAC

56.

What cost 1 C. of Tea at 4l. 5s. 4d. lb. i. e. Multiply 4l. 5s. 4d. by 112.

Multipliers.

$$11 \times 10 + 2 = 112$$

$$10 \times 11 + 2 = 112$$

OR,

$$10 \times 12 - 8 = 112$$

$$12 \times 10 - 8 = 112$$

Top Line $\times 2$

$$s. 4 : 5 \frac{1}{2} d.$$

11

$$2 : 8 : 9 \frac{1}{2}$$

10

$$24 : 8 : 1 \frac{1}{2}$$

$$8 : 10 : \frac{1}{2}$$

} Add.

$$\text{£ } 24 : 17 : - \text{ Answer.}$$

Or you may find the Price of 1 Quarter by multiplying by 4 and by 7, then 4 times this last Product will be the Answer. Also the Answer may be found by multiplying by the Numbers in the Margin.

Multipliers.

$$4 : 5 \frac{1}{2}$$

$$4$$

$$4 \times 7 \times 4 = 112$$

$$4 \times 4 \times 7 = 112$$

$$7 \times 4 \times 4 = 112$$

$$8 \times 2 \times 7 = 112$$

$$2 \times 8 \times 7 = 112$$

$$7 \times 2 \times 8 = 112$$

$$2 \times 7 \times 8 = 112$$

$$7 \times 8 \times 2 = 112$$

$$8 \times 7 \times 2 = 112$$

$$17 : 9 \text{ the Price of 4lb.}$$

$$7$$

$$6 : 4 : 3 \text{ the Price of 28lb. or 1 Qr.}$$

$$4$$

$$\text{£ } 24 : 17 : - \text{ the Price of [112lb. or 4 Qrs. or] 1 C.}$$

57.

Multiply £ 8 : 19 : 6 by 130.

12

Multipliers.

$$107 : 14 : -$$

$$11 \times 12 - 2 = 130$$

11

$$12 \times 11 - 2 = 130$$

$$1184 : 14 : -$$

Top Line $\times 2$

$$17 : 19 : -$$

} Subtract.

$$\text{£ } 1166 : 15 : - \text{ Answer.}$$

58.

What is the Product of £ 4 : 17 : 11 multiplied by 138?

12

Multipliers.

$$11 \times 12 + 6 = 138$$

$$12 \times 11 + 6 = 138$$

$$58 : 15 : -$$

11

$$646 : 5 : -$$

Top Line $\times 6$

$$29 : 7 : 6$$

} Add.

$$\text{£ } 675 : 12 : 6 \text{ Answer.}$$

59. At

TICE.

When the Multiplier is 365, 1008.

29

59. At 15s. 7d. per Day, what is that per Annum, i. e. Multiply 15s. 7d. by 365?

In this and many other Examples it will be necessary to make use of three or more Multipliers, especially when the Multiplier is large.

$$\begin{array}{r} \text{s.} \quad \text{d.} \\ 15 : 7 \\ \hline 10 \end{array} \quad \text{O R,} \quad \begin{array}{r} \text{s.} \quad \text{d.} \\ 15 : 7 \\ \hline 5 \end{array}$$

$$\begin{array}{r} \text{Days.} \\ 7 : 15 : 10 \text{ for } 10 \\ \hline 12 \end{array} \left. \begin{array}{l} \\ \\ \end{array} \right\} \text{Multiply,} \quad \begin{array}{r} 3 : 17 : 11 \\ \hline 6 \end{array}$$

$$\begin{array}{r} 93 : 10 : - \text{ for } 120 \\ \hline 3 \end{array} \left. \begin{array}{l} \\ \\ \end{array} \right\} \text{Multiply,} \quad \begin{array}{r} 23 : 7 : 6 \\ \hline 12 \end{array}$$

$$\begin{array}{r} 280 : 10 : - \text{ for } 360 \\ \hline 3 \end{array} \left. \begin{array}{l} \\ \\ \end{array} \right\} \text{Add. Top L.} \times 5 \quad \begin{array}{r} 3 : 17 : 11 \text{ for } 5 \\ \hline 5 \end{array} \left. \begin{array}{l} \\ \\ \end{array} \right\} \text{Add. Top L.} \times 5$$

$$\begin{array}{r} \pounds 284 : 7 : 11 \text{ for } 365 \\ \hline \end{array} \quad \begin{array}{r} \pounds 284 : 7 : 11 \\ \hline \end{array}$$

60. What is the Price of 7 Grofs of Buckles, at 14. 11 $\frac{1}{2}$ d. per Pair? i. e. Multiply 14. 11 $\frac{1}{2}$ d. by 1008.

$$\begin{array}{r} \text{s.} \quad \text{d.} \\ 1 : 11\frac{1}{2} \\ \hline 12 \end{array}$$

$$\begin{array}{r} 1 : 3 : 3 \text{ the Price of } 12 \text{ or } 1 \\ \hline 12 \end{array} \left. \begin{array}{l} \text{Pair.} \\ \text{Dozen.} \end{array} \right\} \text{Multiply,}$$

$$\begin{array}{r} 13 : 19 : - \text{ the Price of } 144 \text{ or } 12 \\ \hline 7 \end{array} \left. \begin{array}{l} \\ \\ \end{array} \right\} \text{Multiply,}$$

$$\pounds 97 : 13 : - \text{ the Price of } 1008 \text{ or } 84 \text{ or } 7 \text{ Grofs.}$$

Examples for the Learner's Practice.

Answer.

What cost 14 C. at $\pounds 1 : 7 : 9 \text{ per C.}$? $\pounds 19 : 8 : 6$

At 1s. 9d. per Ell, what cost 15 Ells? $15 : 6 : 3$

If 1 Ell costs 8s. 9d. what cost 16 Ells? $7 : - : -$

What must be paid for 17 Dozen of Candles, at 5s. 7d. per Dozen? $4 : 14 : 11$

What cost 18 Grofs of Buckles, at 3s. 11 $\frac{1}{2}$ d. per Grofs? $3 : 11 : 7\frac{1}{2}$

What cost 19 C. of Lead, at 17s. 3d. per C. ? $16 : 7 : 9$

How much is 20 Dollars, each 4s. 6d.? $4 : 10 : -$

Multiply $\pounds 7 : 16 : 8\frac{1}{2}$, by 21. $164 : 11 : 3\frac{1}{2}$

What is the Product of $\pounds 12 : 2 : 7$, multiplied by 22? $266 : 16 : 10$

What cost 23 Yards, at 7s. 9 $\frac{1}{2}$ d. per Yard? $8 : 18 : 8\frac{1}{2}$

Multiply

Answer.

Multiply £ 8 : 17 : 6, by 24. ————	£ 213 : — : —
How much is 25 times £ 81 : 18 : 9½? ————	2048 : 9 : 3½
What must be paid to a Journeyman for 26 Weeks } Work, at 15s. 4d. ½ Week, ————	19 : 10 : —
At 17s. 8d. ½ Ell, what cost 27 Ells? ————	23 : 17 : —
What cost 28 lb. of Butter, at 5½d. ½ lb. ————	— : 13 : 5
Multiply £ 8 : — : 8, by 29. ————	232 : 19 : 4
What cost 30 Rods of Brickwork, at £ 9 : 7 : 8 } ½ Rod? ————	281 : 10 : —
oz. dr. ————	Qrs. lb. oz. dr.
How much is 35 times 12 : 13? ————	— : — : — : 7
How much is 53 times £ 1 : 17 : 8? ————	£ 99 : 16 : 4
oz. dr. ————	Qrs. lb. oz. dr.
What is the Weight of 59 small Parcels, each 15 : 10½ 2 : 1 : 9 : 14 C. Qrs. lb. ————	C. Qrs. lb.
Multiply 8 : 3 : 17, by 100. ————	890 : — : 20
What is the Weight of 103 Ingots of Silver, each } 21 oz. 17 dwts. 19 gr. ————	oz. dwts. gr. 2254 : 12 : 13
What cost 112 lb. of Coffee, at 5s. 4d. ½ lb. ————	£ 29 : 17 : 4
What Quantity of Sugar is there in 117 Parcels, } each 7 lb. 13 oz. ————	O. Qrs. lb. oz. 8 : — : 18 : 1
At 17s. 3½d. ½ Day, what is that ½ Annum? ————	£ 315 : 3 : 10½
What cost 8 Dozen Pair of Gloves, at 1s. 5d. ½ Pair? ————	6 : 16 : —
Multiply £ 7 : 13 : 4, by 131. ————	1004 : 6 : 8
What is the Product of £ 8 : 17 : 9, multiplied by 139? ————	1235 : 7 : 3
What cost 7 Grofs of Buckles, at 1s. 2½d. ½ Pair? ————	59 : 17 : —

✱ By inverting the Question, you may frequently perform such as the following much easier; thus, 20 Moidores at 27 Shillings each, will come to the same as 27 Pieces of Money each 20 Shillings, viz. 27 Pounds. Also 17½ Yards at 20 Shillings ½ Yard, come to 17 Pounds 5 Shillings. Several Examples will be given in their proper Place.



DIV I.

D I V I S I O N

*Of Money, Weight, and Measure.*I. **W**HEN the Divisor is not above 12.

R U L E.

Place the Divisor under the highest Denomination of the Dividend.

Divide the highest Denomination of the Dividend by the Divisor, then multiply the Remainder, if any; by that Number of the next inferior Denomination which makes one of its superior, adding thereto what there is in the Dividend of that next Denomination; divide this Number as above, and proceed in the same manner, till the whole is finished.

I. *Of M O N E Y.**Example.*

61. Divide £ 19 : 4 : 10½ by 5.

$$\begin{array}{r} 5 \overline{) 19 : 4 : 10\frac{1}{2}} \\ \underline{15} \\ 4 : 10\frac{1}{2} \\ \underline{40} \\ 10\frac{1}{2} \\ \underline{10} \\ 1\frac{1}{2} \end{array}$$

Answer.

Place the Divisor 5, under the highest Denomination, i. e. under the Place of Pounds.

Divide 19 Pounds by 5, the Quotient 3 must be set underneath in the Place of Pounds; reduce the Remainder 4 Pounds into Shillings, by multiplying 4 by 20, and to the Product 80 add the 4 Shillings, divide the Sum 84 Shillings by 5, the Quotient 16 must be set underneath in the Place of Shillings; reduce the Remainder 4 Shillings into Pence, by multiplying them by 12, to the Product 48 add the 10 Pence, divide the Sum 58 Pence by 5, the Quotient 11 must be set underneath in the Place of Pence; reduce the Remainder 3 Pence into Farthings, by multiplying them by 4, to the Product 12 add the 3 Farthings, divide the Sum 15 by 5, set the Quotient 3 Farthings underneath in the Place of Farthings, and the Work will be finished.

62. Divide £ 13 : 15 : 11½ by 2.

$$\begin{array}{r} 2 \overline{) 13 : 15 : 11\frac{1}{2}} \\ \underline{10} \\ 3 : 15 : 11\frac{1}{2} \\ \underline{30} \\ 15 : 11\frac{1}{2} \\ \underline{10} \\ 5 : 11\frac{1}{2} \\ \underline{10} \\ 1\frac{1}{2} \end{array}$$

Answer.

63. If 3 lb. of Coffee cost 17s. 3d, what cost 1 lb.?

$$\begin{array}{r} 17 : 3d. \\ \underline{3} \\ 5 : 9 \end{array}$$

Answer.

32 Division of Money.

PRAC.

64. If the Price of 4 Yards of Silk is £ 3 : 11 : —, what is that $\frac{1}{4}$ Yard?

$$\begin{array}{r} \text{£ } 3 \text{ } 11 \text{ } : \text{ } - \\ 4 \\ \hline \text{£ } - : 17 : 9 \text{ Answer.} \end{array}$$

65. Divide £ 5231 : 7 : 7½ by 6.

$$\begin{array}{r} \text{£ } 5231 : 7 : 7\frac{1}{2} \\ 6 \\ \hline \text{£ } 871 : 17 : 11\frac{1}{2} \text{ Answer.} \end{array}$$

66. If 7 C. of Lead cost £ 6 : 5 : 10½, what cost 1 C.?

$$\begin{array}{r} \text{£ } 6 : 5 : 10\frac{1}{2} \\ 7 \\ \hline \text{£ } - : 17 : 11\frac{1}{2} \text{ Answer.} \end{array}$$

67. If 8 Yards of Lace cost £ 31 : 3 : 10, what cost 1 Yard?

$$\begin{array}{r} \text{£ } 31 : 3 : 10 \\ 8 \\ \hline \text{£ } 3 : 17 : 11\frac{1}{2} \text{ Answer.} \end{array}$$

68. What is the Price of 1 Ell of Linnen, if 9 Ells cost

$$\text{£ } 1 : 8 : 8\frac{1}{2}$$

$$\begin{array}{r} \text{£ } 1 : 8 : 8\frac{1}{2} \\ 9 \\ \hline \end{array}$$

$$\text{£ } - : 3 : 2\frac{1}{2} \text{ Answer.}$$

69. Divide £ 13 : 19 : — equally among 10 Men. What is each Man's Share?

$$\begin{array}{r} \text{£ } 13 : 19 : - \\ 10 \\ \hline \end{array}$$

$$\text{£ } 1 : 7 : 10\frac{1}{2} \text{ Answer.}$$

70. Divide £ 7 : 6 : 8 by 11.

$$\begin{array}{r} \text{£ } 7 : 6 : 8 \\ 11 \\ \hline \end{array}$$

$$\text{£ } - : 13 : 4 \text{ Answer.}$$

71. If 12 Pieces of Linnen cost £ 54 : — : —, what cost 1 Piece?

$$\begin{array}{r} \text{£ } 54 : - : - \\ 12 \\ \hline \end{array}$$

$$\text{£ } 4 : 10 : - \text{ Answer.}$$

Examples for the Learner's Practice.

If 2 C. of Lead cost £ 1 : 11 : 7½, what cost 1 C. — Answer. — : 15 : 9½

Divide £ 2 : 13 : 3, by 3. — : 17 : 9

If 4 Yards cost £ 1 : 9 : —, what cost 1 Yard? — : 7 : 3

If 5 Lottery Tickets cost £ 52 : 2 : 11, what cost 1 Ticket? } 10 : 8 : 7

Divide £ 5 : 7 : — equally among 6 Men. — : 17 : 10

What is the Price of 1 C. if 7 C. cost £ 6 : 19 : 10½? — : 19 : 11½

Divide £ 71 : — : — by 8. — : 8 : 17 : 6

What cost 1 Yard of Linnen, if 9 Yards cost 14s. 5½d. ? — : 1 : 7½

If 10 C. cost £ 18 : 13 : 6½, what cost 1 C. ? — : 1 : 17 : 4½

Divide 18s. 1½d. by 11. — : 1 : 7½

What is the Quotient of £ 46 : 12 : 9, divided by 12? 3 : 17 : 8½

II. CLOTH

II. CLOTH MEASURE.

Example.

Yards. Qrs. Nails.

$$72. \quad \text{Divide } 49 : 2 : 3, \text{ by } 5.$$

5

Yards. 9 : 3 : 3 Answer.

Divide 49 Yards by 5, the Quotient 9 must be set underneath in the Place of Yards; reduce the Remainder 4 Yards into Quarters, by multiplying them by 4, and to the Product 16 add the 2 Quarters, divide the Sum 18 by 5, the Quotient 3 must be set underneath in the Place of Quarters; reduce the Remainder 3 Quarters into Nails, by multiplying them by 4, to the Product 12 add the 3 Nails, divide the Sum 15 by 5, set the Quotient 3 underneath in the Place of Nails, and the Work will be finished.

Yds. Qrs. Nail.

$$73. \quad \text{Divide } 923 : 3 : 1 \text{ by } 3.$$

Yds. Qrs. Nails.

$$923 : 3 : 1$$

3

Yards 307 : 3 : 3 Answer.

Ells Eng. Qrs. Nails.

$$74. \quad \text{Divide } 899 : 3 : 3 \text{ by } 5.$$

Ells Eng. Qrs. Nails.

$$899 : 3 : 3$$

5

Ells Eng. 179 : 4 : 3 Answer.

$$75. \quad \text{If 6 Pieces of Tapestry contain } 227 \text{ Ells Fl. } 1 \text{ Qr. } 2 \text{ Nails, what is the Length of 1 Piece?}$$

Ells Fl. Qrs. Nails.

$$227 : 1 : 2$$

6

Ells Fl. 37 : 2 : 3 Answer.

Ells Fr. Qrs. Nails.

$$76. \quad \text{Divide } 349 : 4 : 1 \text{ by } 7.$$

7

Ells Fr. 49 : 5 : 3 Ans.

Examples for the Learner's Practice.

Ells Eng. Qrs. Nails.

$$\text{Divide } 1545 : 3 : 3, \text{ by } 9.$$

Yards. Qrs. Nails.

$$\text{Divide } 3 : 1 : -, \text{ by } 4.$$

Yards. Qrs. Nails.

$$\text{Divide } 197 : 1 : 1, \text{ by } 11.$$

Ells Fl.

$$\text{Divide } 215, \text{ by } 12.$$

Ells Fl.

$$\text{Divide } 438, \text{ by } 8.$$

Ells Fr. Qrs. Nails.

$$\text{What is the Quotient of } 179 : 3 : 2, \text{ divided by } 10. - 17 : 5 : 3$$

F

Answer.

Ells Eng. Qrs. Na.

$$171 : 3 : 3$$

Yards. Qrs. Na.

$$- : 3 : 1$$

Yards. Qrs. Na.

$$17 : 3 : 3$$

Ells Fl. Qrs. Na.

$$17 : 2 : 3$$

Ells Fl. Qrs. Na.

$$54 : 2 : 1$$

Ells Fr. Qrs. Na.

$$17 : 5 : 3$$

III. TROY

III. TROY WEIGHT.

Examples.

$$\begin{array}{r}
 \text{77. Divide } \begin{array}{l} \text{oz. dwts. gr.} \\ 107 : 19 : 15, \text{ by } 9. \end{array} \\
 \underline{9} \\
 \text{oz. } 11 : 19 : 23 \text{ Answer.}
 \end{array}$$

Divide 107 Ounces by 9, the Quotient 11 must be set underneath in the Place of Ounces; reduce the Remainder 8 Ounces into Pennyweights, by multiplying them by 20, and to the Product 160 add the 19 Pennyweights, divide the Sum 179 by 9, the Quotient 19 must be set underneath in the Place of Pennyweights; reduce the Remainder 8 Pennyweights into Grains, by multiplying them by 24, and to the Product 192 add the 15 Grains, divide the Sum 207 by 9, set the Quotient 23 Grains underneath in the Place of Grains, and the Work will be finished.

$$\begin{array}{r}
 \text{78. Divide } \begin{array}{l} \text{oz. dwts. gr.} \\ 75 : 7 : 22 \text{ by } 2. \end{array} \\
 \underline{2} \\
 \text{oz. } 37 : 13 : 23 \text{ Answer.}
 \end{array}$$

$$\begin{array}{r}
 \text{80. Divide } \begin{array}{l} \text{oz. dwts. gr.} \\ 68 : 3 : 4 \text{ by } 4. \end{array} \\
 \underline{4} \\
 \text{oz. } 17 : - : 19 \text{ Answer.}
 \end{array}$$

79. If 3 Silver Tankards weigh 65 oz. 13 dwts. 21 gr. what is the Weight of 1 Tankard?

$$\begin{array}{r}
 \begin{array}{l} \text{oz. dwts. gr.} \\ 65 : 13 : 21 \end{array} \\
 \underline{3} \\
 \text{oz. } 21 : 17 : 23 \text{ Answer.}
 \end{array}$$

81. Divide 3 : 8 : 13 by 5.

$$\begin{array}{r}
 \begin{array}{l} \text{oz. dwts. gr.} \\ 3 : 8 : 13 \end{array} \\
 \underline{5} \\
 \text{oz. } - : 13 : 17 \text{ Answer.}
 \end{array}$$

Examples for the Learner's Practice.

		<i>Answer.</i>
If 6 Silver Spoons weigh	$\begin{array}{l} \text{oz. dwts. gr.} \\ 10 : 7 : 6 \end{array}$	$\begin{array}{l} \text{oz. dwts. gr.} \\ 1 : 14 : 13 \end{array}$
Weight of 1 Spoon?	$\underline{\quad} \quad \underline{\quad} \quad \underline{\quad}$	$\left. \begin{array}{l} \\ \\ \end{array} \right\}$
If 7 Silver Snuff Boxes weigh	$\begin{array}{l} \text{oz. dwts. gr.} \\ 21 : 13 : 3 \end{array}$	$\begin{array}{l} \text{oz. dwts. gr.} \\ 3 : 1 : 21 \end{array}$
1 Snuff Box weigh?	$\underline{\quad} \quad \underline{\quad} \quad \underline{\quad}$	$\left. \begin{array}{l} \\ \\ \end{array} \right\}$
		Divide

	<i>oz. dwts. gr.</i>		<i>Answer.</i>
Divide 478 : 19 : 14, by 10.	— —		<i>oz. dwts. gr.</i> 47 : 17 : 23
Divide 214 : 12 : 12, by 12.	— —		<i>oz. dwts. gr.</i> 17 : 17 : 17
What is the Quotient of 79 : 19 : —, divided by 8.	—		<i>oz. dwts. gr.</i> 9 : 19 : 21
If 9 Sets of Castors weigh 359 : 19 : 15, what does 1 Set weigh ?	— — —		<i>oz. dwts. gr.</i> 39 : 19 : 23

IV. AVOIRDUPOIZE WEIGHT

Examples.

82. Divide $\begin{array}{c} \text{C. } \text{Qrs. } \text{lb.} \\ 53 : 3 : 19, \text{ by } 9. \end{array}$

$\begin{array}{c} \text{Quotient. } 5 : 3 : 27 \end{array}$ *Answer.*

Divide 53 Hundred by 9, set the Quotient 5 underneath in the Place of Hundreds ; reduce the Remainder 8 Hundred into Quarters, by multiplying them by 4, to the Product 32 add the 3 Quarters, divide the Sum 35 by 9, set the Quotient 3 underneath in the Place of Quarters ; reduce the Remainder 8 Quarters into Pounds, by multiplying them by 28, to the Product 224 add the 19 Pounds, divide the Sum 243 by 9, set the Quotient 27 underneath in the Place of Pounds, and the Work will be finished.

83. Divide $\begin{array}{c} \text{C. } \text{Qrs. } \text{lb.} \\ 23 : 2 : 23 \text{ by } 3. \end{array}$

$\begin{array}{c} \text{C. } \text{Qrs. } \text{lb.} \\ 23 : 2 : 23 \\ 3 \end{array}$

$\begin{array}{c} \text{C. } 7 : 3 : 17 \end{array}$ *Answer.*

84. Divide $\begin{array}{c} \text{C. } \text{Qrs. } \text{lb.} \\ 5 : 3 : — \text{ by } 4. \end{array}$

$\begin{array}{c} \text{C. } \text{Qrs. } \text{lb.} \\ 5 : 3 : — \\ 4 \end{array}$

$\begin{array}{c} \text{C. } 1 : 1 : 21 \end{array}$ *Answer.*

85. If 5 Hogheads weigh 69 C. 2 Qrs. 1 lb. what is the Weight of 1 Hoghead ?

$\begin{array}{c} \text{C. } \text{Qrs. } \text{lb.} \\ 69 : 2 : 1 \\ 5 \end{array}$

$\begin{array}{c} \text{C. } 13 : 3 : 17 \end{array}$ *Answer.*

86. If 6 Parcels weigh 5 C. 3 Qrs. 22 lb. what is the Weight of 1 Parcel ?

$\begin{array}{c} \text{C. } \text{Qrs. } \text{lb.} \\ 5 : 3 : 22 \\ 6 \end{array}$

$\begin{array}{c} \text{C. } — : 3 : 27 \end{array}$ *Answer.*

Examples for the Learner's Practice.

	<i>C.</i>	<i>Qrs.</i>	<i>lb.</i>	<i>Answer.</i>
If 9 Hogsheads weigh 161 : — : 13, what is the Weight of 1 Hoghead?				<i>C. Qrs. lb.</i> 17 : 3 : 17
Divide 125 : 3 : 21, by 7.				<i>C. Qrs. lb.</i> 17 : 3 : 27
Divide 11 : — : 4, by 12.				<i>C. Qrs. lb.</i> — : 3 : 19
What is the Quotient of 12 : — : 24, divided by 8?				<i>C. Qrs. lb.</i> 1 : 2 : 3
What is the Quotient of 4 : 1 : 19, divided by 11?				<i>C. Qrs. lb.</i> — : 1 : 17
What is the Quotient of 23 : 3 : 16, divided by 12?				<i>C. Qrs. lb.</i> 1 : 3 : 27

87. Divide $70 : 10 : 10$, by 9.

$$\begin{array}{r} \text{lb. oz. dr.} \\ 9 \overline{) 70 : 10 : 10} \\ \underline{63} \\ 7 : 13 : 10 \text{ Answer.} \end{array}$$

Divide the 70 Pounds by 9, set the Quotient 7 underneath in the Place of Pounds; reduce the Remainder 7 Pounds into Ounces, by multiplying them by 16, to the Product 112 add the 10 Ounces, divide the Sum 122 by 9, set the Quotient 13 underneath in the Place of Ounces; reduce the Remainder 5 Ounces into Drams, by multiplying them by 16, to the Product 80 add the 10 Drams, divide the Sum 90 by 9, set the Quotient 10 underneath the Place of Drams, and the Work will be finished.

88. Divide $30 : 11 : 8$ by 8.

$$\begin{array}{r} \text{lb. oz. dr.} \\ 8 \overline{) 30 : 11 : 8} \\ \underline{24} \\ 6 : 13 : 7 \text{ Ans.} \end{array}$$

89. Divide $14 : 4$ by 12.

$$\begin{array}{r} \text{oz. dr.} \\ 12 \overline{) 14 : 4} \\ \underline{12} \\ 2 : 1 : 3 \text{ Answer.} \end{array}$$

90. Divide $13 : 2$ by 7.

$$\begin{array}{r} \text{lb. oz.} \\ 7 \overline{) 13 : 2} \\ \underline{7} \\ 6 : 14 \text{ Answer.} \end{array}$$

91. Divide $9 : 5 : 11$ by 5.

$$\begin{array}{r} \text{lb. oz. dr.} \\ 5 \overline{) 9 : 5 : 11} \\ \underline{5} \\ 4 : 13 : 15 \text{ Answer.} \end{array}$$

Examples

Examples for the Learner's Practice.

	lb.	oz.	dr.		Answer.	oz.	dr.
Divide 10 : 6 : 8 by 12.	—	—	—		13 : 14		
Divide 15 : 8 by 8.	—	—	—		1 : 15		
What is the Quotient of 4 : — : 10 : 15, divided by 7?	C.	Qrs.	lb. - oz.		Qrs.	lb.	oz.
Divide 8 : 4, by 3.	—	—	—		2 : 12		
Divide 34 : 7 : 10, by 3.	—	—	—		11 : 7 : 14		
Divide 17 : 15 : 7, by 9.	—	—	—		1 : 15 : 15		

IF after the Division is finished there happens to be a Remainder, as in the following Examples, place the Divisor under it.

Examples.

92. Divide £ 17 : 3 : 8 by 11.	95. Divide 17 : 17 : 19 by 12.
£ 17 : 3 : 8	oz. dwts. gr.
11	oz. dwts. gr.
£ 1 : 11 : 2½ + 7/11 of a Far.	17 : 17 : 19
	12
	oz. 1 : 9 : 19 + 7/12 of a Grain.
93. Divide £ 100 by 9.	C. Qrs. lb.
£ 100 : — : —	96. Divide 17 : — : 7 by 4.
9	C. Qrs. lb.
£ 11 : 2 : 2½ + 5/9 or 2/3.	17 : — : 7
	4
	C. 4 : 1 : 1 + 1/4 of a lb. or [12 oz.]
94. Divide 13 : 3 : 1 by 8.	97. Divide 17 : 6 : 15 by 8.
Yards. Qrs. Nails.	lb. oz. dr.
13 : 3 : 1	lb. oz. dr.
8	17 : 6 : 15
Yards 1 : 2 : 3 + 1/8 of a Nail.	8
	lb. 2 : 2 : 13 + 7/8 of a Dram.

Examples

Examples for the Learner's Practice.

Answer.

Divide £ 87 : 16 : 8½ by 2.

£ 43 : 18 : 4½ + ½

Yards. Qrs. Nails.

Yards. Qrs. Nails.

Divide 17 : 3 : 3 by 6.

2 : 3 : 3 + ½

oz. dwts. gr.

dwts. gr.

Divide 1 : 17 : 13 by 10.

3 : 18 + ⅓

C. Qrs. lb.

C. Qrs. lb.

Divide 13 : 3 : 3 by 12.

1 : — : 16 + ⅔

lb. oz. dr.

lb. oz. dr.

Divide 17 : 5 : 3 by 4.

4 : 5 : 4 + ½

D I V I S I O N

Of Money, Weight, and Measure.

II. WHEN the Divisor is above 12.

R U L E.

Find two Numbers whose Product is equal to the given Quantity.

Divide the given Price, Weight, Measure, &c. by one of these Numbers, then divide the Quotient by the other Number; this last Quotient will be the Answer.

But if you cannot find two such Numbers.

Place the whole Divisor, and divide as in long Division of Integers.

Multiply the Remainder, if any, by that Number of the next inferior Denomination which makes one of its superior, adding to the Product what there is in the Dividend of that inferior Denomination, divide this Sum as above, and proceed in the same manner till the whole is finished.

Examples.

98. Divide £ 19 : 8 : 6 by 14.

99. Divide £ 1 : 6 : 3 by 15.

£ s. d.

£ s. d.

19 : 8 : 6

1 : 6 : 3

7

5

2 : 15 : 6

— : 5 : 3

2

3

£ 1 : 7 : 9 Answer.

£ — : 1 : 9 Answer.

100. Divide

TICE. When the Divisor is 13, 16, 17, 18, 19, 20. 39

100. Divide £ 1 : — : 7
by 13.

$$\begin{array}{r}
 \text{13)} \begin{array}{ccc} \text{£} & \text{s.} & \text{d.} \end{array} \begin{array}{ccc} \text{£} & \text{s.} & \text{d.} \end{array} \\
 \begin{array}{ccc} 1 & : & - \\ 20 & : & 7 \end{array} \begin{array}{ccc} - & : & 1 : 7 \text{ Ans.} \end{array} \\
 \hline
 20(1\text{s.} \\
 13 \\
 \hline
 7 \\
 12 \\
 \hline
 91(7\text{d.} \\
 91 \\
 \hline
 \end{array}$$

101. Divide £ 7 by 16.

$$\begin{array}{r}
 \text{£ } 7 : - : - \\
 4 \\
 \hline
 1 : 15 : - \\
 4 \\
 \hline
 \text{£ } - : 8 : 9 \text{ Answer.}
 \end{array}$$

102. If 17 Dozen of Candles cost
£ 4 : 14 : 11, what cost 1
Dozen?

$$\begin{array}{r}
 \text{17)} \begin{array}{ccc} \text{£} & \text{s.} & \text{d.} \end{array} \begin{array}{ccc} \text{£} & \text{s.} & \text{d.} \end{array} \\
 \begin{array}{ccc} 4 & : & 14 : 11 \end{array} \begin{array}{ccc} - & : & 5 : 7 \text{ Ans.} \end{array} \\
 \hline
 20 \\
 \hline
 94(5\text{s.} \\
 85 \\
 \hline
 9 \\
 12 \\
 \hline
 119(7\text{d.} \\
 119 \\
 \hline
 \end{array}$$

103. Divide £ 3 : 11 : 7½
by 18.

$$\begin{array}{r}
 \begin{array}{ccc} \text{£} & \text{s.} & \text{d.} \end{array} \\
 \begin{array}{ccc} 3 & : & 11 : 7\frac{1}{2} \end{array} \\
 \hline
 6 \\
 \hline
 - : 11 : 11\frac{1}{2} \\
 3 \\
 \hline
 \text{£ } - : 3 : 11\frac{1}{2} \text{ Answer.}
 \end{array}$$

104. If 19 C. of Lead cost 16 £.
7s. 9d. what cost 1 C.

$$\begin{array}{r}
 \begin{array}{ccc} \text{£} & \text{s.} & \text{d.} \end{array} \begin{array}{ccc} \text{£} & \text{s.} & \text{d.} \end{array} \\
 \text{19)} \begin{array}{ccc} 16 & : & 7 : 9 \end{array} \begin{array}{ccc} - & : & 17 : 3 \text{ An.} \end{array} \\
 \hline
 20 \\
 \hline
 327(17\text{s.} \\
 19 \\
 \hline
 137 \\
 133 \\
 \hline
 4 \\
 12 \\
 \hline
 57(3\text{d.} \\
 57 \\
 \hline
 \end{array}$$

105. If 20 Dollars are worth
£ 4 : 10, what is 1 Dollar
worth?

$$\begin{array}{r}
 \begin{array}{ccc} \text{£} & \text{s.} & \text{d.} \end{array} \\
 \begin{array}{ccc} 4 & : & 10 : - \end{array} \\
 \hline
 5 \\
 \hline
 - : 18 : - \\
 4 \\
 \hline
 \text{£ } - : 4 : 6 \text{ Answer.}
 \end{array}$$

106. If

40 When the Divisor is 21, 22, 23, 24, 25, 26. PRAC-

106. If I divide £ 164 : 11 : 3½
equally amongst 21 Men, what
is each Man's Share?

$$\begin{array}{r} \text{£ } 164 : 11 : 3\frac{1}{2} \\ 7 \end{array}$$

$$\begin{array}{r} 23 : 10 : 2\frac{1}{2} \\ 3 \end{array}$$

$$\text{£ } 7 : 16 : 8\frac{1}{2} \text{ Answer.}$$

107. What is the Quotient of
£ 266 : 16 : 10 divided
by 22?

$$\begin{array}{r} \text{£ } 266 : 16 : 10 \\ 11 \end{array}$$

$$\begin{array}{r} 24 : 5 : 2 \\ 2 \end{array}$$

$$\text{£ } 12 : 2 : 7 \text{ Answer.}$$

108. If 23 Yards of Flowered
Linnen cost £ 8 : 18 : 8½
what did 1 Yard cost?

$$\begin{array}{r} \text{£ } \textit{s. d.} \quad \text{£ } \textit{s. d.} \\ 23 \overline{) 8 : 18 : 8\frac{1}{2}} (- : 7 : 9\frac{1}{2} \text{ Ans.} \\ 20 \end{array}$$

$$\begin{array}{r} 178 \text{ (7s.} \\ 161 \end{array}$$

$$\begin{array}{r} 17 \\ 12 \end{array}$$

$$\begin{array}{r} 212 \text{ (9d.} \\ 207 \end{array}$$

$$\begin{array}{r} 5 \\ 4 \end{array}$$

$$23 \text{ (1 Farthing.}$$

$$\begin{array}{r} 23 \\ - \end{array}$$

109. Divide £ 213 by 24.

$$\begin{array}{r} \text{£ } 213 : - : - \\ 6 \end{array}$$

$$\begin{array}{r} 35 : 10 : - \\ 4 \end{array}$$

$$\text{£ } 8 : 17 : 6 \text{ Answer.}$$

110. Divide £ 2048 : 9 : 3½
by 25.

$$\begin{array}{r} \text{£ } 2048 : 9 : 3\frac{1}{2} \\ 5 \end{array}$$

$$\begin{array}{r} 409 : 13 : 10\frac{1}{2} \\ 5 \end{array}$$

$$\text{£ } 81 : 18 : 9\frac{1}{2} \text{ Answer.}$$

111. Divide C. Qrs. lb.
127 : 3 : 18
by 26.

$$\begin{array}{r} \text{C. Qrs. lb. C. Qrs. lb.} \\ 26 \overline{) 127 : 3 : 18} (4 : 3 : 19 \\ 104 \text{ Answer.} \end{array}$$

$$\begin{array}{r} 23 \\ 4 \end{array}$$

$$\begin{array}{r} 95 \text{ (3 Qrs.} \\ 78 \end{array}$$

$$\begin{array}{r} 17 \\ 28 \end{array}$$

$$\begin{array}{r} 144 \\ 35 \end{array}$$

$$\begin{array}{r} 26 \overline{) 494} \text{ (19 lb.} \\ 26 \end{array}$$

$$\begin{array}{r} 234 \\ 234 \end{array}$$

TICE. When the Divisor is 27, 28, 29, 30, 35, 53. 41

112. If 27 Ells cost £ 23 : 17, what cost 1 Ell?

£ 23 : 17 : —

9

2 : 13 : —

3

£ — : 17 : 8 Answer.

113. If 28 lb. of Butter cost 13s. 5d. what cost 1 lb.?

s. 13 : 5d.

7

1 : 11

4

s. — : 5½ Answer.

114. Divide £ 232 : 19 : 4 by 29.

29) £ s. d. £ s. d.
232 : 19 : 4 (8 : — : 8
232
Answer.

... 19
12

232 (8d.

232

115. If 30 Rods of Brickwork cost £ 281 : 10, how much is that 4 Rod?

£ 281 : 10 : —

10

28 : 3 : —

3

£ 9 : 7 : 8 Answer.

116. If 35 small Parcels of an equal Weight weigh 1 ^{qr.} — lb. — oz. 7 dr. what is the Weight of 1 Parcel?

Qrs. lb. oz. dr.

1 : — : — : 7

7

— : 4 : — : 1

5

Qrs. — : — : 12 : 13 Answer.

117. Divide £ 99 : 16 : 4 by 53.

£ s. d. £ s. d.
53) 99 : 16 : 4 (1 : 17 : 8
53
Answer.

46

20

936 (17s.

53

406

371

35

12

424 (8d.

424

42 When the Divisor is 59, 100, 103.

PRAC-

118. If 59 Parcels of Tea of an equal Weight, weigh 2 *Qrs.* 1 *lb.* 9 *oz.* 14 *dr.* what is the Weight of 1 Parcel?

Qrs. *lb.* *oz.* *dr.* *oz.* *dr.*
59) 2 : 1 : 9 : 14 (15 : 10
28 Answer.

57
16

351
57

921 (15 *oz.*

59

331
295

36
16

220

37

590 (10 *dr.*

59

C. *Qrs.* *lb.*
119. Divide 890 : — : 20
by 100.

C. *Qrs.* *lb.*
890 : — : 20
10

89 : — : 2
10

C. 8 : 3 : 17 Answer.

O R,

C. *Qrs.* *lb.*
8|90 : — : 20

4
3|60
28

5 00 C. *Qrs.* *lb.*
120 8 : 3 : 17 Answer.

17|00

120. Divide £ 875 by 100.

£ 875 : — : —
10

87 : 10 : —
10

£ 8 : 15 : — Answer.

O R,

£
8|75
20
15|00

£ 8 : 15 Answer.

121. If 103 Ingots of an equal Weight, weigh 2254 *oz.* 12 *dwt.* 13 *gr.* what is the Weight of 1 Ingot?

oz. *dwt.* *gr.* *oz.* *dwt.* *gr.*
103) 2254 : 12 : 13 (21 : 17 : 19
206 Answer.

.194
103

91
20

1832 (17 *dwt.*
103

802
721

.81
24

337
162

1957 (19 *gr.*
103

927
927

122. If

TICE.

When the Divisor is 112, 130, 138, 365.

43

122. If 112 lb. of Coffee cost 29 £ 17 s. 4 d. what cost 1 lb.?

$$\begin{array}{r}
 \text{£} \quad \text{s.} \quad \text{d.} \\
 29 : 17 : 4 \\
 \hline
 4 \\
 \hline
 7 : 9 : 4 \\
 \hline
 4 \\
 \hline
 1 : 17 : 4 \\
 \hline
 7 \\
 \hline
 \text{£} \text{---} : 5 : 4 \text{ Answer.}
 \end{array}$$

For a Variety of Divisors see

Example 56.

123. Divide £ 1166 : 15 equally amongst 130 Men.

$$\begin{array}{r}
 \text{£} \quad \text{s.} \quad \text{d.} \\
 130 \overline{) 1166 : 15} \quad (8 : 19 : 6 \\
 \underline{104} \\
 126 \\
 \underline{20} \\
 253 \overline{) 19} \quad 19 \text{ s.} \\
 \underline{13} \\
 123 \\
 \underline{117} \\
 .65 \\
 \underline{12} \\
 78 \overline{) 0} \quad (6 \text{ d.} \\
 \underline{78}
 \end{array}$$

124. What is the Quotient of £ 675 : 12 : 6, divided by 138?

$$\begin{array}{r}
 \text{£} \quad \text{s.} \quad \text{d.} \quad \text{£} \quad \text{s.} \quad \text{d.} \\
 138 \overline{) 675 : 12 : 6} \quad (4 : 17 : 11 \\
 \underline{552} \text{ Answer.} \\
 123 \\
 \underline{20} \\
 2472 \quad (17 \text{ s.} \\
 \underline{138} \\
 1092 \\
 \underline{966} \\
 126 \\
 \underline{12} \\
 1518 \quad (11 \text{ d.} \\
 \underline{138} \\
 138 \\
 \underline{138}
 \end{array}$$

125. At £ 315 : 3 : 10½ Year, what is that Day? i. e. divide £ 315 : 3 : 10½ by 365.

$$\begin{array}{r}
 \text{£} \quad \text{s.} \quad \text{d.} \quad \text{£} \quad \text{s.} \quad \text{d.} \\
 365 \overline{) 315 : 3 : 10\frac{1}{2}} \quad (\text{---} : 17 : 3\frac{1}{2} \\
 \underline{20} \text{ Answer.} \\
 6303 \quad (17 \text{ s.} \\
 \underline{365} \\
 2653 \\
 \underline{2555} \\
 .98 \\
 \underline{12} \\
 1186 \quad (3 \text{ d.} \\
 \underline{1095} \\
 .91 \\
 \underline{4} \\
 365 \quad (1 \text{ Far.} \\
 \underline{365}
 \end{array}$$

44 When the Divisor is 96, 1008.

PRAC-

126. Gave £ 6 : 16 for 8 Dozen
Pair of Gloves, what cost 1
Pair ? *i. e.* divide £ 6 : 16
by 96.

£ s. d.
6 : 16 : 7—
8

— : 17 : — $\frac{1}{2}$ Dozen.
12

£ — : 1 : 5 $\frac{1}{2}$ Pair.

127. If 7 Grofs Pair of Buckles
cost £ 59 : 17, what cost 1
Pair ?

£ 59 : 17 : —
7

8 : 11 : — $\frac{1}{2}$ Grofs.
12

— : 14 : 3 $\frac{1}{2}$ Dozen.
12

£ — : 1 : 2 $\frac{1}{2}$ Pair.

Examples for the Learner's Practice.

Answer.

Gave £ 50 : 7 : 9 $\frac{1}{2}$ for 13 C. of Sugar, what cost 1 C. ? £ 3 : 17 : 6 $\frac{1}{2}$

If 14 Yards of Linnen cost £ 1 : 16 : 5 $\frac{1}{2}$, what cost } — : 2 : 7 $\frac{1}{2}$
1 Yard ? — — — — —

If 15 C. of Sugar cost £ 118 : 17 : 6, what is that } 7 : 18 : 6
 $\frac{1}{2}$ C. ? — — — — —

Gave £ 4 : 13 for 16 Ounces of Silver, what is that } — : 5 : 9 $\frac{1}{2}$
 $\frac{1}{2}$ Ounce ? — — — — —

Sold 17 Quarters of Oats for £ 13 : 7 : 9 what was } — : 15 : 9
1 Quarter sold for ? — — — — —

If 18 Pieces of Money are worth £ 24 : 6, what is } 1 : 7 : —
the Value of 1 of those Pieces ? — — — — —

Paid 18s. 7 $\frac{1}{2}$ d. for 19 Bushels of Coals, what is that } — : — : 11 $\frac{1}{2}$
 $\frac{1}{2}$ Bushel ? — — — — —

Yards. Qrs.

Yards. Qrs. Na.

If 20 Pieces of Cloth contain 438 : 3, what does 1 } 21 : 3 : 3
Piece contain ? — — — — —

What is the Length of 1 Piece of Linnen, if 21 Pieces } Ells Eng. Qrs Na.
are 754 Ells Eng. 4 Qrs. 3 Nails ? — — — — —

oz. dwts. gr.

oz. dwts. gr.

If 22 Silver Tankards weigh 613 : 13 : 6, what is } 27 : 17 : 21
the Weight of 1 Tankard ? — — — — —

lb. oz. dwts. gr.

lb. oz. dwts. gr.

If 23 Ingots of Silver weigh 113 : 1 : 16 : 7, } 4 : 11 : — : 17
what is the Weight of one Ingot ? — — — — —

C. Qrs. lb.

C. Qrs. lb.

How much is the Quotient of 191 : 3 : 4, divided } 7 : 3 : 27
by 24 ? — — — — —

If

- Answer.*
C. Qrs. lb. *C. Qrs. lb.*
 If 322 : 2 : 5 is the Weight of 25 Hogheads, what } 12 : 3 : 17
 is the Weight of 1 Hoghead? — — —
- C. Qrs. lb. oz.* *lb. oz.*
 Divide 3 : — : 24 : 12 by 26. — — 13 : 14
- C. Qrs. lb. oz.* *lb. oz.*
 What is the Quotient of 2 : 3 : 10 : 15, divided by 27? — 11 : 13
- C. Qrs. lb. oz.* *Qrs. lb. oz.*
 If 28 Parcels weigh 7 : — : 12 : 4, what is the } 1 : — : 7
 Weight of 1 Parcel? — — —
- C. Qrs. lb. oz. dr.* *lb. oz. dr.*
 If 28 Parcels weigh 6 : 1 : 13 : 10 : 12, what is } 25 : 7 : 13
 the Weight of 1 Parcel? — — —
- Divide £ 112 : 19 : 7, by 29. — — £ 3 : 17 : 11
- How much Linnen is there in 1 Piece, if in 30 Pieces } *Ells Eng. Qrs. Na.*
 there are 958 *Ells Eng. 2 Qrs. 2 Nails?* — — } 31 : 4 : 3
- Qrs. lb. oz. dr.* *oz. dr.*
 If 37 small Parcels of Tea weigh 1 : 3 : 12 : 12, what } 13 : 12
 is the Weight of 1 Parcel? — — —
- Divide £ 470 : 19 : 7½ by 53. — — £ 8 : 17 : 8½
- Yards. Qrs. Nails.* *Yards. Qrs. Na.*
 Divide 1058 : 1 : 1 by 59. — — 17 : 3 : 3
- If 8 Dozen Pair of Gloves cost £ 6, what is that *pp* Pair? £ — : 1 : 3
- C. Qrs.* *C. Qrs. lb.*
 Divide 356 : 1 by 100. — — — 3 : 2 : 7
- Divide £ 399 : 19 : 8 by 103. — — £ 3 : 17 : 8
- If 112 *lb.* of Tea cost £ 24 : 17, what is that *pp lb.?* £ — : 4 : 5½
- Ells Eng. Qrs. Nails.* *Ells Eng. Qrs. Na.*
 Divide 4440 : — : 3 by 117. — — 37 : 4 : 3
- At £ 284 : 7 : 11 *pp* Year, what is that *pp* Day? £ — : 15 : 7
- Paid £ 97 : 13 for 7 Gros of Buckles, how much is } — : 1 : 11½
 that *pp* Pair? — — —

IN the following Examples there may be two Remainders; but the true Remainder may be found by this

R U L E.

Multiply the first Divisor by the last Remainder, [to the Product add the first Remainder, if any] under which place the given Divisor.

Examples.

128. Divide £ 37 : 18 : 7½
by 14.

$$\begin{array}{r} \text{£} \quad \text{s.} \quad \text{d.} \\ 37 : 18 : 7\frac{1}{2} \\ \underline{2} \end{array}$$

$$\begin{array}{r} 18 : 19 : 3\frac{1}{2} : 1 \\ \underline{7} \end{array}$$

$$\text{£} 2 : 14 : 2 : 6$$

2 × 6 + 1 = 13 the true Remainder.

Answer £ 2 : 14 : 2 + 13

Yards. Qrs. Nails.

129. Divide 171 : 3 : 3 by 16.

Yards. Qrs. Nails.

$$\begin{array}{r} 171 : 3 : 3 \\ \underline{4} \end{array}$$

$$\begin{array}{r} 42 : 3 : 3 : 3 \\ \underline{4} \end{array}$$

$$\text{Yards } 10 : 2 : 3 : 3$$

4 × 3 + 3 = 15 the true Remainder.

Yards. Qrs. Nails.

Answer 10 : 2 : 3 + 15

130. If 24 Hogheads of Tobacco weigh 125 C. 3 Qrs. 17 lb. what is the Weight of 1 Hoghead?

C. Qrs. lb.

$$\begin{array}{r} 125 : 3 : 17 \\ \underline{3} \end{array}$$

$$\begin{array}{r} 41 : 3 : 24 : 1 \\ \underline{8} \end{array}$$

$$5 : 1 : 27 : 4$$

3 × 4 + 1 = 13 the true Remainder.

Answer C. 5 : 1 : 27 + 13

131. Divide £ 87 : 17 : 11½ by 47.

$$\begin{array}{r} \text{£} \quad \text{s.} \quad \text{d.} \\ 87 : 17 : 11\frac{1}{2} \\ \underline{47} \end{array} \quad \begin{array}{r} \text{£} \quad \text{s.} \quad \text{d.} \\ 1 : 17 : 4\frac{1}{2} \\ \underline{47} \end{array}$$

Answer.

$$\begin{array}{r} 47 \\ \underline{40} \\ 20 \end{array}$$

$$87(17 \text{ s.})$$

$$\underline{47}$$

$$347$$

$$\underline{329}$$

$$18$$

$$\underline{12}$$

$$227(4 \text{ d.})$$

$$\underline{188}$$

$$39$$

$$\underline{4}$$

$$159(3 \text{ Far.})$$

$$\underline{141}$$

$$18$$

Examples for the Learner's Practice.

Divide £ 37 : 17 : 11 by 16. — —

Answer £ 2 : 7 : 4½ + 13 or 13

Divide 117 Yards, 3 Qrs. 3 Nails, by 18. — —

Yards 6 : 2 : — + 13

If 27 Spoons weigh 29oz. 17dwts. 3gr. what is

the Weight of 1 Spoon? — —

{ oz. dwts. gr.

{ 1 : 2 : 2 + 27 or 27

If 30 Parcels of Sugar weigh 6C. 3 Qrs. 17lb, what is the

Weight of 1 Parcel? — —

{ lb.

{ 25 + 23

Divide £ 30 by 365. — —

£ — : 1 : 7½ + 13 or 13

PRACTICE

PRACTICE TABLES.

TABLE I.

The aliquot Parts of a Shilling in Pence.

d.		
1	— is —	$\frac{1}{12}$
$1\frac{1}{2}$	—	$\frac{1}{8}$
2	—	$\frac{1}{6}$
3	—	$\frac{1}{4}$
4	—	$\frac{1}{3}$
6	—	$\frac{1}{2}$

TABLE II.

The aliquot Parts of a Pound Sterling in Pence.

d.		
2	— is —	$\frac{1}{120}$
3	—	$\frac{1}{80}$
4	—	$\frac{1}{60}$
6	—	$\frac{1}{40}$
8	—	$\frac{1}{30}$

TABLE III.

The aliquot Parts of a Pound Sterling in Shillings and Pence.

s.	d.	
1	: — — is —	$\frac{1}{20}$
1	: 8 —	$\frac{1}{15}$
2	: — —	$\frac{1}{10}$
2	: 6 —	$\frac{1}{8}$
3	: 4 —	$\frac{1}{6}$
4	: — —	$\frac{1}{5}$
5	: — —	$\frac{1}{4}$
6	: 8 —	$\frac{1}{3}$
10	: — —	$\frac{1}{2}$

TABLE IV.

Tenths of a Pound Sterling.

s.		
2	— is —	$\frac{1}{10}$
4	—	$\frac{2}{10}$
6	—	$\frac{3}{10}$
8	—	$\frac{4}{10}$
12	—	$\frac{6}{10}$
14	—	$\frac{7}{10}$
16	—	$\frac{8}{10}$
18	—	$\frac{9}{10}$

CASE I.

WHEN the Price of the Integer is an aliquot Part of a Shilling, as in Table I.

RULE.

Divide the given Quantity by that Part, the Quotient will be Shillings; the Remainder will be so many times that Part: divide the Shillings by 20, the Quotient will be Pounds, and the Remainder Shillings.

This is performed by the Rule of Reduction.

Examples.

Examples.

132. 137 lb. at 1 d. $\frac{1}{12}$ lb. will come to 137 d.
lb.

$$\begin{array}{r} d. \\ 1 - \frac{1}{12} \overline{) 137} \\ \underline{12} \\ 17 \\ \underline{16} \\ 1 \end{array} : 5 \text{ Answer.}$$

The 5 which remains is 5 Pence.

133. 875 Yards at $1\frac{1}{2}$ d. $\frac{1}{12}$ Yard, will be 875 three Halfpences.

$$\begin{array}{r} Yards. \\ 875 \\ d. \\ 1\frac{1}{2} - \frac{1}{12} \overline{) 875} \\ \underline{10} 9 : 4\frac{1}{2} \\ \underline{2} 0 \end{array}$$

$$\text{£ } 5 : 9 : 4\frac{1}{2} \text{ Answer.}$$

The 3 which remains is 3 times $1\frac{1}{2}$ d.
viz. $4\frac{1}{2}$ d.

134. 1757 Ells, at 2 d. $\frac{1}{12}$ Ell, will come to 1757 Twopences.

$$\begin{array}{r} Ells. \\ 1757 \\ d. \\ 2 - \frac{1}{12} \overline{) 1757} \\ \underline{29} 2 : 10 \\ \underline{2} 0 \end{array}$$

$$\text{£ } 14 : 12 : 10 \text{ Answer.}$$

The 5 which remains is 5 Twopences,
viz. 10 d.

See Example 144.

135. 871 C. at 3 d. $\frac{1}{12}$ C. will be 871 Threepences.
871 C.

$$\begin{array}{r} d. \\ 3 - \frac{1}{12} \overline{) 871} \\ \underline{21} 7 : 9 \\ \underline{2} 0 \end{array}$$

$$\text{£ } 10 : 17 : 9 \text{ Answer.}$$

The 3 which remains is 3 Threepences,
viz. 9 d.

See Example 145.

136. 764 Days, at 4 d. $\frac{1}{12}$ Day, will come to 764 Groats.
764 Days.

$$\begin{array}{r} d. \\ 4 - \frac{1}{12} \overline{) 764} \\ \underline{25} 4 : 8 \\ \underline{2} 0 \end{array}$$

$$\text{£ } 12 : 14 : 8 \text{ Answer.}$$

The 2 which remains is 2 Groats,
viz. 8 d.

See Example 146.

137. 131 Yards, at 6 d. $\frac{1}{12}$ Yard, will be 131 Sixpences.
131 Yds.

$$\begin{array}{r} d. \\ 6 - \frac{1}{12} \overline{) 131} \\ \underline{6} 5 : 6 \\ \underline{2} 0 \end{array}$$

$$\text{£ } 3 : 5 : 6 \text{ Answer.}$$

The Remainder is one Sixpence.

See Example 147.

Examples for the Learner's Exercise.

What cost 879 Yards, at 1 d. $\frac{1}{12}$ Yard?	—	Answer.	£ 3 : 13 : 3
At $1\frac{1}{2}$ d. $\frac{1}{12}$ Yard, what cost 871 Yards?	—		5 : 8 : 10 $\frac{1}{2}$
At 2 d. $\frac{1}{12}$ Yard, what cost 1761 Yards?	—		14 : 13 : 6
At 3 d. $\frac{1}{12}$ lb. what cost 871 lb.	—		10 : 17 : 9
At 4 d. $\frac{1}{12}$ C. what cost 171 C.	—		2 : 17 : —
At 6 d. $\frac{1}{12}$ Ell, what cost 871 Ells?	—		21 : 15 : 6

SUMS

SUMS in the Rule of Practice admit of various Ways of working, and sometimes equally short; they serve as Proofs to each other; it is very proper, and most consistent [where convenient] to prove Practice by Practice, it may be proved by the Rule of Three; or by Reduction, by reducing the Answer into the same Name as the Price, and dividing it by the Price, the Quotient will be the given Quantity: but if you divide by the Quantity the Quotient will be the Price.

Proof to Example 133.

$$£ 5 : 9 : 4\frac{1}{2}$$

20

109

12

1312

2

Quantity 875) 2625 (3 Halfpence the Price.
2625

2625
Price 3
Quantity 875 Yards.

A farther Use of CASE I.

$d.$
 $4\frac{1}{2}$ is $\frac{9}{8}$
 $7\frac{1}{2}$ is $\frac{15}{8}$
8 is $\frac{8}{8}$ } of a Shilling.

$d.$
9 is $\frac{9}{8}$
10 is $\frac{10}{8}$
 $10\frac{1}{2}$ is $\frac{21}{8}$ } of a Shilling.

Examples.

138. 873 Ounces, at $4\frac{1}{2}d.$ q^{d} Ounce.

873 oz.

3

2619

8

$32\frac{7}{8} : 4\frac{1}{2}$
 $2 \mid 0$

£ 16 : 7 : $4\frac{1}{2}$ Answer.

See Example 315.

139. 721 C. at $7\frac{1}{2}d.$ q^{d} C.

C.

721

5

3605

8

$45 \mid 0 : 7\frac{1}{2}$
 $2 \mid 0$

£ 22 : 10 : $7\frac{1}{2}$ Answer.

See Example 326.

50 Case II.

PRAC.

140. 159 C. at 8d. q^{d} C.

$$\begin{array}{r} 2 \\ \hline 318 \\ 3 \\ \hline 106 \\ 20 \end{array}$$

£ 5 : 6 Answer.

See Example 148.

141. 1745 Quires, at 9d. each.

$$\begin{array}{r} 3 \\ \hline 5235 \\ 4 \\ \hline 1308 : 9 \\ 20 \end{array}$$

£ 65 : 8 : 9 Answer.

See Example 149, 207, 331, & 394.

142. 9073 Yards, at 10d. q^{d} Yard.

$$\begin{array}{r} 5 \\ \hline 45365 \\ 6 \\ \hline 7560 : 10 \\ 20 \end{array}$$

£ 378 : — : 10 Answer.

See Example 150, 206, 335, & 395.

143. 875 Ells, at $10\frac{1}{2}$ d. q^{d} Ell.

$$\begin{array}{r} 7 \\ \hline 6125 \\ 8 \\ \hline 765 : 7\frac{1}{2} \\ 20 \end{array}$$

£ 38 : 5 : $7\frac{1}{2}$ Answer.

See Example 205, and 337.

Examples for Exercises see Cases II, VI, and XI.

C A S E II.

WHEN the Price of the Integer is Pence, and those Pence are an aliquot Part of a Pound Sterling, as in Table II.

R U L E.

Divide the given Quantity by that Part, the Quotient will be Pounds; the Remainder will be so many times that Part.

Examples.

144. 1757 Ells, at 2d. q^{d} Ell.

$$\begin{array}{r} 1757 \text{ Ells.} \\ \hline 2 - \frac{1}{10} \text{ } \left[\begin{array}{l} \text{£ } 14 : 12 : 10 \text{ Answer.} \end{array} \right. \end{array}$$

The Remainder is 77 Twopences,
viz. 12s. 10d.

See Example 134.

145. 871 C. at 3d. q^{d} C.

$$\begin{array}{r} 871 \text{ C.} \\ \hline 3 - \frac{1}{10} \text{ } \left[\begin{array}{l} \text{£ } 10 : 17 : 9 \text{ Answer.} \end{array} \right. \end{array}$$

The Remainder is 71 Threepences,
viz. 17s. 9d.

See Example 135.

146. 764 Days,

TICE.

Use of Case II. 51

146. 764 Days, at 4d. $\frac{1}{10}$ Day.

$$\begin{array}{r} d. \\ 4 - \frac{1}{10} \overline{) \text{£ } 12 : 14 : 8} \text{ Answer.} \end{array}$$

The Remainder is 44 Groats, viz.
14s. 8d.

See Example 136.

147. 131 Yards, at 6d. $\frac{1}{10}$ Yard.

$$\begin{array}{r} d. \\ 6 - \frac{1}{10} \overline{) \text{£ } 3 : 5 : 6} \text{ Answer.} \end{array}$$

The Remainder is 11 Sixpences,
viz. 5s. 6d.

See Example 137.

148. 15/9 C. at 8d. $\frac{1}{10}$ C.

$$\begin{array}{r} d. \\ 8 - \frac{1}{10} \overline{) \text{£ } 5 : 6} \text{ Answer.} \end{array}$$

See Example 140.

The Remainder is 9 Eightpences, viz. 6s. found readily thus, divide the Eightpences by 3, and double the Quotient for Shillings, $9 \div 3 = 3$, $3 + 3 = 6$. So 10 Eightpences = 6s. 8d. And for 11 Eightpences, divide 12 by 3, double the Quotient, and take 8d. from it. $12 \div 3 = 4$, $4 + 4 = 8$, $8 - 8 = 7$ s. 4d. and so of any other Number.

Examples for the Learner's Exercise.

What cost 173 lb. at 2d. $\frac{1}{10}$ lb.?	_____	<i>Answer.</i> £ 1 : 8 : 10
At 3d. $\frac{1}{10}$ Yard, what cost 713 Yards?	_____	8 : 18 : 3
How much is 873 Groats?	_____	14 : 11 : —
At 6d. $\frac{1}{10}$ Foot, what cost 731 Feet?	_____	18 : 5 : 6
What cost 871 Ells, at 8d. $\frac{1}{10}$ Ell?	_____	29 : — : 8

Farther Use of CASE II.

s.	d.		s.	d.	
—	9	is — $\frac{1}{10}$	2	8	is — $\frac{8}{10}$
—	10	— $\frac{1}{10}$	2	9	— $\frac{1}{10}$
1	2	— $\frac{1}{10}$	3	—	— $\frac{2}{10}$ or $\frac{1}{5}$
1	3	— $\frac{3}{10}$	3	6	— $\frac{1}{10}$
1	4	— $\frac{4}{10}$	3	8	— $\frac{1}{10}$
1	6	— $\frac{1}{10}$	4	6	— $\frac{2}{10}$
1	9	— $\frac{7}{10}$	4	8	— $\frac{1}{10}$
1	10	— $\frac{11}{10}$	5	4	— $\frac{1}{10}$
2	3	— $\frac{9}{10}$	5	6	— $\frac{1}{10}$
2	4	— $\frac{7}{10}$	7	4	— $\frac{11}{10}$

of a £.

of a £.

*Examples.*149. 1745 Yards, at 9d. $\frac{1}{2}$ Yard.*Yards.*

1745

3

538 | 5

8 | 0

 $\pounds 65 : 8 : 9$ Answer.

See Example 141, 207, 331, & 394.

150. 9073 Yards, at 10d. $\frac{1}{2}$ Yard.*Yards.*

9073

5

4536 | 5

12 | 0

 $\pounds 378 : - : 10$ Answer.

See Example 142, 206, 335, & 395.

151. 713 lb. at 1s. 2d. $\frac{1}{2}$ lb.*lb.*

713

7

499 | 1

12 | 0

 $\pounds 41 : 11 : 10$ Answer.

See Example 219, and 396.

152. 873 Yards, at 1s. 3d. $\frac{1}{2}$ Yard.*Yards.*

873

5

436 | 5

8 | 0

 $\pounds 54 : 11 : 3$ Answer.

See Example 220, and 397.

153. 913 C. at 1s. 4d. $\frac{1}{2}$ C.*C.*

913

4

365 | 2

6 | 0

 $\pounds 60 : 17 : 4$ Answer.

See Example 221, and 398.

154. 713 Feet, at 1s. 6d. $\frac{1}{2}$ Foot.*Feet.*

713

3

213 | 9

4 | 0

 $\pounds 53 : 9 : 6$ Answer.

See Example 222.

155. 173 Ells, at 1s. 9d. $\frac{1}{2}$ Ell.*Ells.*

173

7

121 | 1

8 | 0

 $\pounds 15 : 2 : 9$ Answer.

See Example 373, and 400.

156. 795 Ells, at 1s. 10d. $\frac{1}{2}$ Ell.*Ells.*

795

11

874 | 5

12 | 0

 $\pounds 72 : 17 : 6$ Answer.

See Example 223.

157. 713 C.

TICE.

157. 713 C. at 2s. 3d. $\frac{1}{4}$ C.

C.

713

9

641

8

0

£ 80 : 4 : 3 Answer.

See Example 226.

158. 107 lb. at 2s. 4d. $\frac{1}{4}$ lb.

lb.

107

7

74

6

0

£ 12 : 9 : 8 Answer.

See Example 227.

159. 931 C. at 2s. 8d. $\frac{1}{4}$ C.

C.

931

8

744

6

0

£ 124 : 2 : 8 Answer.

See Example 228.

160. 173 Yards, at 2s. 9d. $\frac{1}{4}$ Yard?

Yards.

173

11

190

8

0

£ 23 : 15 : 9 Answer.

See Example 229.

Use of Case II. 53

161. 719 lb. at 3s. $\frac{1}{4}$ lb.

lb.

719

3

215

2

0

£ 107 : 17 Answer.

See Example 231.

162. 1735 Yards, at 3s. 6d. $\frac{1}{4}$ Yard.

1735 Yds.

7

1214

4

0

£ 303 : 12 : 6 Answer.

See Example 233.

163. 379 Bushels, at 3s. 8d. $\frac{1}{4}$ Bushel.

Bushels.

379

11

416

6

0

£ 69 : 9 : 8 Answer.

See Example 235.

164. 713 lb. at 4s. 6d. $\frac{1}{4}$ lb.

lb.

713

9

641

4

0

£ 160 : 8 : 6 Answer.

See Example 240.

165. 837 Yards;

54 Case III.

PRAC.

165. 837 Yards, at 4s. 8d. $\frac{1}{4}$ Yard.

837 Yds.
7

585|9
3 0

£ 195 : 6 Answer.

See Example 241.

166. 871 oz. at 5s. 4d. $\frac{1}{4}$ oz.

871
8

696|8
3 0

£ 232 : 5 : 4 Answer.

See Example 244.

167. 737 lb. at 5s. 6d. $\frac{1}{4}$ lb.

737
11

810|7
4 0

£ 202 : 13 : 6 Answer.

See Example 245.

168. 157 Ells, at 7s. 4d. $\frac{1}{4}$ Ell.

157
11

172|7
3 0

£ 57 : 11 : 4 Answer.

See Example 256.

Examples for the Learner's Exercise see those Cases where the same Examples are wrought differently.

C A S E III.

WHEN the Price of the Integer is Shillings and Pence, and those Shillings and Pence are an aliquot Part of a Pound Sterling, as in Table III.

R U L E.

Divide the given Quantity by that Part, the Quotient will be Pounds, the Remainder will be so many times that Part.

Examples.

169. 879 Yards, at 1s. $\frac{1}{4}$ Yard, come to 879 s.

879 Yds.

1 - $\frac{1}{4}$ | £ 43 : 19 Answer.

The Remainder is 19 Shillings.

170. 875 Guilders, at 1s. 8d. each.

875 Guilders.

s. d. 1 : 8 - $\frac{1}{4}$ | £ 72 : 18 : 4 Answer.

The Remainder is 11 times 1s. 8d. viz. 18s. 4d.

171. 575 lb.

TICE.

171. 375 lb. at 2s. 6d. $\frac{1}{2}$ lb.
375 lb.

s. d.
2 : 6 — $\frac{1}{2}$ £ 46 : 17 : 6 Answer.

The Remainder is 7 times 2s. 6d. viz.
17s. 6d.

172. 719 C. at 3s. 4d. $\frac{1}{2}$ C.
719 C.

s. d.
3 : 4 — $\frac{1}{2}$ £ 119 : 16 : 8 Answer.

The Remainder is 5 times 3s. 4d. viz.
16s. 8d.

173. 979 C. at 4s. $\frac{1}{2}$ C.
979 C.

s. d.
4 — $\frac{1}{2}$ £ 195 : 16 Answer.

The Remainder is 4 times 4s. viz. 16s.
See Example 190.

Use of Case III. 55

174. 879 Yards, at 5s. $\frac{1}{2}$ Yard.
879 Yards.

s. d.
5 — $\frac{1}{2}$ £ 219 : 15 Answer.

The Remainder is 3 times 5s. viz.
15s.

175. 704 Ells, at 6s. 8d. $\frac{1}{2}$ Ell.
704 Ells.

s. d.
6 : 8 — $\frac{1}{2}$ £ 234 : 13 : 4 Answer.

The Remainder is 2 times 6s. 8d.
viz. 13s. 4d.

176. 895 C. at 10s. $\frac{1}{2}$ C.
895 C.

s. d.
10 — $\frac{1}{2}$ £ 447 : 10 Answer.

The Remainder is 10s.

Examples for the Learner's Exercise.

At 1s. per Yard, what cost 371 Yards?	—	£ 18 : 11 : —
At 1s. 8d. per Ell, what cost 1000 Ells?	—	83 : 6 : 8
How much is 875 Half Crowns?	—	109 : 7 : 6
At 3s. 4d. per Ell, what cost 731 Ells?	—	121 : 16 : 8
At 4s. per Ounce, what cost 171 Ounces?	—	34 : 4 : —
How much is 709 Crowns?	—	177 : 5 : —
At 6s. 8d. per C. what cost 709 C.	—	236 : 6 : 8
At 10s. per C. what cost 171 C.	—	85 : 10 : —

Farther Use of CASE III.

s. d.
7 : 6 — is — $\frac{1}{2}$
8 : — — — $\frac{2}{3}$
8 : 4 — — — $\frac{1}{3}$
11 : 8 — — — $\frac{1}{6}$
12 : — — — $\frac{1}{4}$
12 : 6 — — — $\frac{1}{8}$

of a Pound.

s. d.
13 : 4 — is — $\frac{1}{2}$
15 : — — — $\frac{2}{3}$
16 : — — — $\frac{1}{3}$
16 : 8 — — — $\frac{1}{6}$
17 : 6 — — — $\frac{1}{4}$
18 : 4 — — — $\frac{1}{8}$

177. 739 C.

56 Use of Case III.

177. 739 C. at 7s. 6d. $\frac{1}{2}$ C.

739 C.

3

2217

8

£ 277 : 2 : 6 Answer.

See Example 257.

178. 921 lb. at 8s. $\frac{1}{2}$ lb.

921 lb.

2

1842

5

£ 368 : 8 Answer.

See Example 192.

179. 473 Sacks, at 8s. 4d. $\frac{1}{2}$ Sack.

473 Sacks.

5

2365

12

£ 197 : 1 : 8 Answer.

See Example 261.

180. 707 lb. at 11s. 8d. $\frac{1}{2}$ lb.

707 lb.

7

4949

12

£ 412 : 8 : 4 Answer.

See Example 274.

PRAC.

181. 617 Yards, at 12s. $\frac{1}{2}$ Yard.

617 Yds.

3

1851

5

£ 370 : 4 Answer.

See Example 193.

182. 703 lb. at 12s. 6d. $\frac{1}{2}$ lb.

703 lb.

5

3515

8

£ 439 : 7 : 6 Answer.

See Example 278.

183. 9571 Ells, at 13s. 4d. $\frac{1}{2}$ Ell.

9571 Ells.

2

19142

3

£ 6380 : 13 : 4 Ans.

See Example 218.

184. 879 Yards, at 15s. $\frac{1}{2}$ Yard.

879 Yds.

3

2637

4

£ 659 : 5 Answer.

See Example 217, and 285.

185. 173 oz.

TICE.

Case IV. 57

185. 173 oz. at 16s. 4d. oz.

173 oz.

4

692

5

£ 138 : 8 Answer.

See Example 195.

186. 139 C. at 16s. 8d. 4d. C.

C.

139

5

695

6

£ 115 : 16 : 8 Answer.

See Example 216.

187. 7301 Pair, at 17s. 6d. 4d. Pair.

7301 Pair.

7

51107

8

£ 6388 : 7 : 6 Answer.

See Example 215.

188. 203 Gros, at 18s. 4d. 4d. Gros.

203 Gros.

11

2233

12

£ 186 : 1 : 8 Answer.

See Example 214, and 296.

For Examples for the Learner's Exercise, see those for
Cases IV, VII, and VIII.

C A S E IV.

WHEN the Price of the Integer is Tenths of a Pound Sterling, as in Table IV.

R U L E.

Multiply the given Quantity by the Numerator, and double the Figure in Units Place of the Product, for Shillings; the Figures to the left Hand will be Pounds.

The Reason for doubling the Figure in Units Place will be obvious, if we consider that the Remainder after dividing by 10, will be so many Tenths of a Pound as there are Units in the Remainder.

Since 2 Shillings is $\frac{1}{5}$ of a Pound by Table IV,

$$\left. \begin{array}{r} \frac{1}{10} \\ \frac{1}{10} \\ \frac{1}{10} \\ \frac{1}{10} \end{array} \right\} \text{ of a Pound is } \left. \begin{array}{r} 6 \\ 14 \\ 8 \\ 4 \end{array} \right\} \text{ Shillings.}$$

Examples.

189. 71½ Ells, at 2s. ½ Ell.

$$\begin{array}{r} 2 - \frac{1}{10} \overline{) \text{£ } 71 : 6} \text{ Answer.} \end{array}$$

The double of the Remainder 3 is 6,
i. e. $3 \times 2 = 6$.

190. 979 C. at 4s. ½ C.

$$\begin{array}{r} 4 - \frac{2}{10} \overline{) \text{£ } 195 : 16} \text{ Answer.} \end{array}$$

The double of 8 is 16.
See Example 173.

191. 879 Ells, at 6s. ½ Ell.

$$\begin{array}{r} 6 - \frac{1}{10} \overline{) \text{£ } 263 : 14} \text{ Answer.} \end{array}$$

The double of 7 is 14.

192. 921 lb. at 8s. ½ lb.

$$\begin{array}{r} 8 - \frac{4}{10} \overline{) \text{£ } 368 : 8} \text{ Answer.} \end{array}$$

The double of 4 is 8.
See Example 178.

193. 617 Yards, at 12s. ½ Yard.

$$\begin{array}{r} 617 \text{ Yds.} \\ 6 \end{array}$$

$$\begin{array}{r} 12 - \frac{6}{10} \overline{) \text{£ } 370 : 4} \text{ Answer.} \end{array}$$

The double of 2 is 4.
See Example 181.

194. 871 C. at 14s. ½ C.

$$\begin{array}{r} 14 - \frac{7}{10} \overline{) \text{£ } 609 : 14} \text{ Answer.} \end{array}$$

The double of 7 is 14.

195. 173 oz. at 16s. ½ oz.

$$\begin{array}{r} 16 - \frac{8}{10} \overline{) \text{£ } 138 : 8} \text{ Answer.} \end{array}$$

The double of 4 is 8.
See Example 185.

196. 317 Ells, at 18s. ½ Ell.

$$\begin{array}{r} 18 - \frac{9}{10} \overline{) \text{£ } 285 : 6} \text{ Answer.} \end{array}$$

The double of 3 is 6.

Examples for the Learner's Exercise.

Answer.

What cost 871 Dozen, at 2s. per Dozen? — — — £ 87 : 2 : —

What cost 175 Pair, at 4s. per Pair? — — — 35 : — : —

What cost 785 C. at 6s. per C.? — — — 235 : 10 : —

What cost 871 Gros, at 8s. per Gros? — — — 348 : 8 : —

At 12s. per C. what cost 173 C. — — — 103 : 16 : —

At 14s. per Ell, what cost 871 Ells? — — — 609 : 14 : —

If 1 Yard cost 16s. what cost 173 Yards? — — — 138 : 8 : —

At 18s. per Gros, what cost 871 Gros? — — — 783 : 18 : —

Farther

Farther Use of CASE IV.

When the Price of the Integer is any Number of Pounds, with even Shillings annexed.

R U L E.

Reduce the Price into Shillings, then multiply the given Quantity by half the Number of Shillings, and double the Figure in Units Place of the Product for Shillings, the Figures to the left Hand will be Pounds.

Examples.

197.	713 C. at 56s. 4d. C.	199.	171 Ells, at £5 : 8d. Ell.
	$\begin{array}{r} 7 \quad 2 \\ \hline 4991 \quad 28 \\ 4 \quad - \\ \hline \end{array}$		$\begin{array}{r} 9 \\ \hline 1539 \\ 0 \quad 2 \quad 6 \\ \hline \end{array}$
	£ 1996 : 8 Answer.		£ 923 : 8 Answer.

198.	791 Yards, at £1 : 16d. Yard.	200.	713 C. at £9 : 16d. C.
	$\begin{array}{r} 791 \text{ Yds.} \\ 6 \quad - \\ \hline 4746 \\ 3 \quad - \\ \hline \end{array}$		$\begin{array}{r} 713 \text{ C.} \\ 98 \quad - \\ \hline 5704 \\ 6417 \\ \hline \end{array}$
	£ 1423 : 16 Answer.		£ 6987 : 8 Answer.

Examples for the Learner's Exercise.

What cost 173 Ells, at 28s. per Ell?	—	Answer.	£ 242 : 4 : —
At 58s. per C. what cost 871 C.	—		2525 : 18 : —
At £5 : 18 per C. what cost 871 C.	—		5138 : 18 : —
At £8 : 18 per Gros, what cost 807 Gros?	—		7182 : 6 : —

C A S E V.

WHEN the Price of the Integer is 7, 9, or 11 Shillings.

R U L E.

Multiply the given Quantity by the Price, divide the Product by 20, the Quotient will be Pounds, the Remainder Shillings.

Examples.

201. 1431 Yards, at 7s. d^{d} Yard.

1431 Yds.

7

10017

210

 $\text{£ } 500 : 17$ Answer.

See Example 254.

203.

714 lb. at 11s. d^{d} lb.

11

7854

210

 $\text{£ } 392 : 14$ Answer.202. 341 C. at 9s. d^{d} C.

341 C.

9

3069

210

 $\text{£ } 153 : 9$ Answer.

See Example 272

When the Price is 13s. see Case VIII, if at 15s. see Case VII, and VIII, if at 17s. see Case VIII, if at 19s. see Case VII, and VIII.

Examples for the Learner's Exercise.

Answer.

At 7s. per C. what cost 137 C. — —

 $\text{£ } 47 : 19 : -$

What cost 971 Ells, at 9s. per Ell? — —

 $436 : 19 : -$

At 11s. per Yard, what cost 173 Yards? — —

 $95 : 3 : -$

C A S E VI.

THIS Case is a Praxis on Case I.

The Value at so much as the Price is less than a Shilling, being Subtracted from the Value of the given Quantity in Shillings, the Remainder will be the Answer in Shillings, &c. Divide the Shillings by 20, will bring them into Pounds.

Examples.

204. 973 Yards, at 11d. d^{d} Yard.

s. d.

973 : —

1 — 11

81 : 1 Case I. } Subtract

891 : 11

210

 $\text{£ } 44 : 11 : 11$ Answer.

See Example 339.

It is evident that 973 Yards, at 11s. d^{d} Yard, will come to as many Shillings as there are Yards, viz. 973 Shillings; also 973 Yards, at 11d. d^{d} Yard, will come to 81s. 11d. by Case I. Subtract 81s. 11d. from 973s. the Remainder 891s. 11d. will be the Answer in Shillings and Pence; divide the Shillings by 20, the Answer will be $\text{£ } 44 : 11 : 11$.

205. 875 Ells,

TICE.

Case VII. 61

205. 875 Ells, at $10\frac{1}{2}d.$ $\frac{1}{2}d.$ Ell.

$$\begin{array}{r} \text{d.} \quad \text{s.} \quad \text{d.} \\ 1\frac{1}{2} - \frac{1}{2} \left| \begin{array}{l} 875 : - \\ 109 : 4\frac{1}{2} \end{array} \right\} \text{Subtract.} \\ \hline 76 \overline{) 5} : 7\frac{1}{2} \\ 2 \overline{) 0} : \\ \hline \text{£ } 38 : 5 : 7\frac{1}{2} \text{ Answer.} \end{array}$$

See Example 143, 149, and 337.

207.

1745 Quires, at $9d.$ $\frac{1}{2}d.$ Quire.

$$\begin{array}{r} \text{d.} \quad \text{s.} \quad \text{d.} \\ 3 - \frac{1}{2} \left| \begin{array}{l} 1745 : - \\ 436 : 3 \end{array} \right\} \text{Subtract.} \\ \hline 130 \overline{) 8} : 9 \\ 2 \overline{) 0} : \\ \hline \text{£ } 65 : 8 : 9 \text{ Answer.} \end{array}$$

See Example 141, 149, 331, and 394.

Examples for the Learner's Exercise.

At $11d.$ per Yard, what cost 871 Yards? — $\text{£ } 39 : 18 : 5$ *Answer.*
 At $10\frac{1}{2}d.$ per Halfpeck Loaf, what cost 817 Half-
 peck Loaves? — $35 : 14 : 10\frac{1}{2}$
 What cost 173 Quires of Paper, at $10d.$ per Quire? — $7 : 4 : 2$
 What cost 879 Dozen, at $9d.$ per Dozen? — $32 : 19 : 3$

C A S E VII.

THIS Case is a Praxis on Case II, and III.

The Value at *so much as the Price is less than a Pound Sterling*, being *Subtracted* from the Value of the given Quantity in Pounds, the Remainder will be the Answer in Pounds, &c.

Examples.

208. 473 Yards, at $19s.$ $10d.$ $\frac{1}{2}d.$ Yard.

$$\begin{array}{r} \text{£} \quad \text{s.} \quad \text{d.} \\ 2 - 11\frac{1}{2} \left| \begin{array}{l} 473 : - : - \\ 3 : 18 : 10 \end{array} \right\} \text{Sub. Case II.} \\ \hline \text{£ } 469 : 1 : 2 \text{ Answer.} \end{array}$$

See Example 520.

It is evident that 473 Yards, at $20s.$ $\frac{1}{2}d.$ Yard, will come to as many Pounds as there are Yards, viz. 473 Pounds; also 473 Yards, at $2d.$ $\frac{1}{2}d.$ Yard, will come to $3l.$ $18s.$ $10d.$ by Case II. Subtract $3l.$ $18s.$ $10d.$ from $473l.$ the Remainder $469l.$ $1s.$ $2d.$ will be the Answer.

209. 371 Ells,

62 Case VII.

PRAC-

209. 371 Ells, at 19s. 9d. $\frac{1}{2}$ Ell.

$$\begin{array}{r} \text{d.} \\ 3 - \frac{1}{20} \end{array} \left| \begin{array}{r} \text{£} \quad \text{s.} \quad \text{d.} \\ 371 : - : - \\ 4 : 12 : 9 \end{array} \right. \text{Case II. } \left. \begin{array}{l} \text{Sub.} \\ \text{Answer.} \end{array} \right\}$$

See Example 519.

210. 379 Yards, at 19s. 8d. $\frac{1}{2}$ Yard.

$$\begin{array}{r} \text{d.} \\ 4 - \frac{1}{20} \end{array} \left| \begin{array}{r} \text{£} \quad \text{s.} \quad \text{d.} \\ 379 : - : - \\ 6 : 6 : 4 \end{array} \right. \text{Case II. } \left. \begin{array}{l} \text{Sub.} \\ \text{Answer.} \end{array} \right\}$$

See Example 301.

211. 8703 Ells, at 19s. 6d. $\frac{1}{2}$ Ell.

$$\begin{array}{r} \text{d.} \\ 6 - \frac{1}{20} \end{array} \left| \begin{array}{r} \text{£} \quad \text{s.} \quad \text{d.} \\ 8703 : - : - \\ 217 : 11 : 6 \end{array} \right. \text{Case II. } \left. \begin{array}{l} \text{Sub.} \\ \text{Answer.} \end{array} \right\}$$

See Example 517.

212. 473 C. at 19s. 4d. $\frac{1}{2}$ C.

$$\begin{array}{r} \text{d.} \\ 8 - \frac{1}{20} \end{array} \left| \begin{array}{r} \text{£} \quad \text{s.} \quad \text{d.} \\ 473 : - : - \\ 15 : 15 : 4 \end{array} \right. \text{Case II. } \left. \begin{array}{l} \text{Sub.} \\ \text{Answer.} \end{array} \right\}$$

See Example 300, and 515.

213. 759 Dozen, at 19s. $\frac{1}{2}$ Dozen.

$$\begin{array}{r} \text{s.} \\ 1 - \frac{1}{20} \end{array} \left| \begin{array}{r} \text{£} \quad \text{s.} \quad \text{d.} \\ 759 : - : - \\ 47 : 19 : - \end{array} \right. \text{Case III. } \left. \begin{array}{l} \text{Sub.} \\ \text{Answer.} \end{array} \right\}$$

See Example 299.

214. 203 Gros, at 18s. 4d. $\frac{1}{2}$ Gros.

$$\begin{array}{r} \text{s.} \quad \text{d.} \\ 1 : 8 - \frac{1}{2} \end{array} \left| \begin{array}{r} \text{£} \quad \text{s.} \quad \text{d.} \\ 203 : - : - \\ 16 : 18 : 4 \end{array} \right. \text{Case III. } \left. \begin{array}{l} \text{Sub.} \\ \text{Answer.} \end{array} \right\}$$

See Example 188, and 206.

215. 7301 Pair, at 17s. 6d. $\frac{1}{2}$ Pair.

$$\begin{array}{r} \text{s.} \quad \text{d.} \\ 2 : 6 - \frac{1}{2} \end{array} \left| \begin{array}{r} \text{£} \quad \text{s.} \quad \text{d.} \\ 7301 : - : - \\ 912 : 12 : 6 \end{array} \right. \text{Case III. } \left. \begin{array}{l} \text{Sub.} \\ \text{Answer.} \end{array} \right\}$$

See Example 187.

216. 139 C. at 16s. 8d. $\frac{1}{2}$ C.

$$\begin{array}{r} \text{s.} \quad \text{d.} \\ 3 : 4 - \frac{1}{2} \end{array} \left| \begin{array}{r} \text{£} \quad \text{s.} \quad \text{d.} \\ 139 : - : - \\ 23 : 3 : 4 \end{array} \right. \text{Case III. } \left. \begin{array}{l} \text{Sub.} \\ \text{Answer.} \end{array} \right\}$$

See Example 186.

217. 879 Yards, at 15s. $\frac{1}{2}$ Yard.

$$\begin{array}{r} \text{s.} \\ 5 - \frac{1}{2} \end{array} \left| \begin{array}{r} \text{£} \quad \text{s.} \quad \text{d.} \\ 879 : - : - \\ 219 : 15 : - \end{array} \right. \text{Case III. } \left. \begin{array}{l} \text{Sub.} \\ \text{Answer.} \end{array} \right\}$$

See Example 184, and 285.

218. 9571 Ells, at 13s. 4d. $\frac{1}{2}$ Ell.

$$\begin{array}{r} \text{s.} \quad \text{d.} \\ 6 : 8 - \frac{1}{2} \end{array} \left| \begin{array}{r} \text{£} \quad \text{s.} \quad \text{d.} \\ 9571 : - : - \\ 3190 : 6 : 8 \end{array} \right. \text{Case III. } \left. \begin{array}{l} \text{Sub.} \\ \text{Answer.} \end{array} \right\}$$

See Example 183.

Examples

Examples for the Learner's Exercise.

Answer.

At 19s. 10d. per C. what cost 821 C.	—	£ 814 : 3 : 2
What cost 171 Yards, at 19s. 9d. per Yard?	—	168 : 17 : 3
At 19s. 8d. per Ell, what cost 173 Ells?	—	170 : 2 : 4
At 19s. 6d. per C. what cost 157 C.?	—	153 : 1 : 6
What cost 179 Grofs, at 19s. 4d. per Grofs?	—	173 : — : 8
At 19s. per Yard, what cost 801 Yards?	—	760 : 19 : —
If 1 C. cost 18s. 4d. what cost 917 C.?	—	840 : 11 : 3
At 17s. 6d. per Yard, what cost 127 Yards?	—	111 : 2 : 6
What cost 171 C. at 16s. 8d. per C.	—	142 : 10 : —
At 15s. per Yard, what cost 117 Yards?	—	87 : 15 : —
At 13s. 4d. per Ell, what cost 817 Ells?	—	544 : 13 : 4

C A S E V I I I

SUCH Questions whose Parts are each to be taken out of the given Numbers.

R U L E.

Find two Numbers *both which are aliquot Parts of a Pound, whose Sum is the same as the given Price, proceed with them as in Cases II, III, and IV; add the Quotients together, the Sum will be the Answer.*

Examples.

219. 713 lb. at 1s. 2d. $\frac{1}{10}$ lb.

	713 lb.	
d.		
8 — $\frac{1}{10}$	23 : 15 : 4	Case
6 — $\frac{1}{10}$	17 : 16 : 6	II.
1 : 2	£ 41 : 11 : 10	Answer.

See Example 151, and 396.

220. 873 Yards, at 1s. 3d. $\frac{1}{10}$ Yard.

	873 Yds.	
s. d.		
1 : — $\frac{1}{10}$	43 : 13 : —	Case III.
3 — $\frac{1}{10}$	10 : 18 : 3	Case II.
1 : 3	£ 54 : 11 : 3	Ans.

See Example 152, and 397.

221. 913 C. at 1s. 4d. $\frac{1}{10}$ C.

	913 C.	
s. d.		
1 : — $\frac{1}{10}$	45 : 13 : —	Case III.
4 — $\frac{1}{10}$	15 : 4 : 4	Case II.
1 : 4	£ 60 : 17 : 4	Ans.

See Example 153, and 398.

222. 713 Feet, at 1s. 6d. $\frac{1}{10}$ Foot.

	713 Feet.	
s. d.		
1 : — $\frac{1}{10}$	35 : 13 : —	Case III.
6 — $\frac{1}{10}$	17 : 16 : 6	Case II.
1 : 6	£ 53 : 9 : 6	Answer.

See Example 154.

223. 795 Ells.

64 *Case VIII.*

223. 795 Ells, at 1 s. 10 d. $\frac{1}{10}$ Ell.

$$\begin{array}{r} s. \quad d. \\ 1: 8 - \frac{1}{10} \left| \begin{array}{l} 66: 5: - \text{Case III.} \\ 6: 12: 6 \text{ Case II.} \end{array} \right. \\ 2 - \frac{1}{10} \\ \hline 1: 10 \quad \pounds 72: 17: 6 \text{ Answer.} \end{array}$$

See Example 156.

224. 137 Thousand, at 1 s. 11 d. $\frac{1}{10}$ Thousand.
137 Thousand.

$$\begin{array}{r} s. \quad d. \\ 1: 8 - \frac{1}{10} \left| \begin{array}{l} 11: 8: 4 \text{ Case III.} \\ 1: 14: 3 \text{ Case II.} \end{array} \right. \\ 3 - \frac{1}{10} \\ \hline 1: 11 \quad \pounds 13: 12: 7 \text{ Answer.} \end{array}$$

225. 317 Yards, at 2 s. 2 d. $\frac{1}{10}$ Yard.

$$\begin{array}{r} s. \quad d. \\ 2: - - \frac{1}{10} \left| \begin{array}{l} 31: 14: - \text{Case IV.} \\ 2: 12: 10 \text{ Case II.} \end{array} \right. \\ 2 - \frac{1}{10} \\ \hline 2: 2 \quad \pounds 34: 6: 10 \text{ Answer.} \end{array}$$

226. 713 Ells, at 2 s. 3 d. $\frac{1}{10}$ Ell.

$$\begin{array}{r} s. \quad d. \\ 2: - - \frac{1}{10} \left| \begin{array}{l} 71: 6: - \text{Case IV.} \\ 8: 18: 3 \text{ Case II.} \end{array} \right. \\ 3 - \frac{1}{10} \\ \hline 2: 3 \quad \pounds 80: 4: 3 \text{ Answer.} \end{array}$$

See Example 157.

227. 107 Yards, at 2 s. 4 d. $\frac{1}{10}$ Yard.

$$\begin{array}{r} s. \quad d. \\ 2: - - \frac{1}{10} \left| \begin{array}{l} 10: 14: - \text{Case IV.} \\ 1: 15: 8 \text{ Case II.} \end{array} \right. \\ 4 - \frac{1}{10} \\ \hline 2: 4 \quad \pounds 12: 9: 8 \text{ Answer.} \end{array}$$

See Example 158.

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228. 931 C. at 2 s. 8 d. $\frac{1}{10}$ C.
931 C.

$$\begin{array}{r} s. \quad d. \\ 2: - - \frac{1}{10} \left| \begin{array}{l} 93: 2: - \text{Case IV.} \\ 31: - : 8 \text{ Case II.} \end{array} \right. \\ 8 - \frac{1}{10} \\ \hline 2: 8 \quad \pounds 124: 2: 8 \text{ Answer.} \end{array}$$

See Example 159.

229. 173 Yards, at 2 s. 9 d. $\frac{1}{10}$ Yard.
173 Yds.

$$\begin{array}{r} s. \quad d. \\ 2: 6 - \frac{1}{10} \left| \begin{array}{l} 21: 12: 6 \text{ Case III.} \\ 2: 3: 3 \text{ Case II.} \end{array} \right. \\ 3 - \frac{1}{10} \\ \hline 2: 9 \quad \pounds 23: 15: 9 \text{ Answer.} \end{array}$$

See Example 160.

230. 873 Ells, at 2 s. 10 d. $\frac{1}{10}$ Ell.
873 Ells.

$$\begin{array}{r} s. \quad d. \\ 2: 6 - \frac{1}{10} \left| \begin{array}{l} 109: 2: 6 \text{ Case III.} \\ 14: 11: - \text{Case II.} \end{array} \right. \\ 4 - \frac{1}{10} \\ \hline 2: 10 \quad \pounds 123: 13: 6 \text{ Answer.} \end{array}$$

231. 719 lb. at 3 s. $\frac{1}{10}$ lb.
719 lb.

$$\begin{array}{r} s. \\ 2 - \frac{1}{10} \left| \begin{array}{l} 71: 18 \text{ Case IV.} \\ 35: 19 \text{ Case III.} \end{array} \right. \\ 1 - \frac{1}{10} \\ \hline 3 \quad \pounds 107: 17 \text{ Answer.} \end{array}$$

See Example 161.

232. 907 lb. at 3 s. 2 d. $\frac{1}{10}$ lb.
907 lb.

$$\begin{array}{r} s. \quad d. \\ 2: 6 - \frac{1}{10} \left| \begin{array}{l} 113: 7: 6 \text{ Case III.} \\ 30: 4: 8 \text{ Case II.} \end{array} \right. \\ 8 - \frac{1}{10} \\ \hline 3: 2 \quad \pounds 143: 12: 2 \text{ Answer.} \end{array}$$

233. 1735 Yards,

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233. 1735 Yards, at 3s. 6d. $\frac{1}{2}$ Yard.

1735 Yds.

$$\begin{array}{r} s. \quad d. \\ 2: 6 -- \frac{1}{8} \quad | \quad 216: 17: 6 \text{ Case III.} \\ 1: -- \frac{1}{20} \quad | \quad 86: 15: -- \text{Case II.} \\ \hline 3: 6 \quad \text{£ } 303: 12: 6 \text{ Answer.} \end{array}$$

See Example 162.

234. 891 Ells, at 3s. 7d. $\frac{1}{2}$ Ell.

891 Ells.

$$\begin{array}{r} s. \quad d. \\ 3: 4 -- \frac{1}{8} \quad | \quad 148: 10: -- \text{Case III.} \\ 3: -- \frac{1}{20} \quad | \quad 11: 2: 9 \text{ Case II.} \\ \hline 3: 7 \quad \text{£ } 159: 12: 9 \text{ Answer.} \end{array}$$

235. 379 Bushels, at 3s. 8d. $\frac{1}{2}$ Bushel.

379 Bush.

$$\begin{array}{r} s. \quad d. \\ 3: 4 -- \frac{1}{8} \quad | \quad 63: 3: 4 \text{ Case III.} \\ 4: -- \frac{1}{20} \quad | \quad 6: 6: 4 \text{ Case II.} \\ \hline 3: 8 \quad \text{£ } 69: 9: 8 \text{ Answer.} \end{array}$$

See Example 163.

236. 873 lb. at 3s. 10d. $\frac{1}{2}$ lb.

873 lb.

$$\begin{array}{r} s. \quad d. \\ 3: 4 -- \frac{1}{8} \quad | \quad 145: 10: -- \text{Case III.} \\ 6: -- \frac{1}{20} \quad | \quad 21: 16: 6 \text{ Case II.} \\ \hline 3: 10 \quad \text{£ } 167: 6: 6 \text{ Answer.} \end{array}$$

237. 371 oz. at 4s. 2d. $\frac{1}{2}$ oz.

371 oz.

$$\begin{array}{r} s. \quad d. \\ 4: -- \frac{1}{2} \quad | \quad 74: 4: -- \text{Case III.} \\ 2: -- \frac{1}{20} \quad | \quad 3: 1: 10 \text{ Case II.} \\ \hline 4: 2 \quad \text{£ } 77: 5: 10 \text{ Answer.} \end{array}$$

238. 719 C. at 4s. 3d. $\frac{1}{2}$ C.

719 C.

$$\begin{array}{r} s. \quad d. \\ 4: -- \frac{1}{2} \quad | \quad 143: 16: -- \text{Case III.} \\ 3: -- \frac{1}{20} \quad | \quad 8: 19: 9 \text{ Case II.} \\ \hline 4: 3 \quad \text{£ } 152: 15: 3 \text{ Answer.} \end{array}$$

239. 837 lb. at 4s. 4d. $\frac{1}{2}$ lb.

837 lb.

$$\begin{array}{r} s. \quad d. \\ 4: -- \frac{1}{2} \quad | \quad 167: 8: -- \text{Case III.} \\ 4: -- \frac{1}{20} \quad | \quad 13: 19: -- \text{Case II.} \\ \hline 4: 4 \quad \text{£ } 181: 7: -- \text{Answer.} \end{array}$$

240. 713 lb. at 4s. 6d. $\frac{1}{2}$ lb.

713 lb.

$$\begin{array}{r} s. \quad d. \\ 4: -- \frac{1}{2} \quad | \quad 142: 12: -- \text{Case III.} \\ 6: -- \frac{1}{20} \quad | \quad 17: 16: 6 \text{ Case II.} \\ \hline 4: 6 \quad \text{£ } 160: 8: 6 \text{ Answer.} \end{array}$$

See Example 164.

241. 837 Yards, at 4s. 8d. $\frac{1}{2}$ Yard.

837 Yds.

$$\begin{array}{r} s. \quad d. \\ 4: -- \frac{1}{2} \quad | \quad 167: 8: -- \text{Case III.} \\ 8: -- \frac{1}{20} \quad | \quad 27: 18: -- \text{Case II.} \\ \hline 4: 8 \quad \text{£ } 195: 6: -- \text{Answer.} \end{array}$$

See Example 165.

242. 179 Ells, at 5s. 2d. $\frac{1}{2}$ Ell.

179 Ells.

$$\begin{array}{r} s. \quad d. \\ 5: -- \frac{1}{2} \quad | \quad 44: 15: -- \text{Case III.} \\ 2: -- \frac{1}{20} \quad | \quad 1: 9: 10 \text{ Case II.} \\ \hline 5: 2 \quad \text{£ } 46: 4: 10 \text{ Answer.} \end{array}$$

243. 471 C.

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243. 471 C. at 5s. 3d. $\frac{1}{10}$ C.
471 C.

$$\begin{array}{r} s. \quad d. \\ 5: \text{---} \frac{1}{2} \left| 117:15: \text{---} \text{Case III.} \right. \\ \quad 3 \text{---} \frac{1}{10} \left| \quad 5:17: 9 \text{Case II.} \right. \\ \hline 5: 3 \quad \pounds 123:12: 9 \text{ Answer.} \end{array}$$

244. 871 oz. at 5s. 4d. $\frac{1}{10}$ oz.
871 oz.

$$\begin{array}{r} s. \quad d. \\ 5: \text{---} \frac{1}{2} \left| 217:15: \text{---} \text{Case III.} \right. \\ \quad 4 \text{---} \frac{1}{10} \left| \quad 14:10: 4 \text{Case II.} \right. \\ \hline 5: 4 \quad \pounds 232: 5: 4 \text{ Answer.} \end{array}$$

See Example 166.

245. 737 lb. at 5s. 6d. $\frac{1}{10}$ lb.
737 lb.

$$\begin{array}{r} s. \quad d. \\ 5: \text{---} \frac{1}{2} \left| 184: 5: \text{---} \text{Case III.} \right. \\ \quad 6 \text{---} \frac{1}{10} \left| \quad 18: 8: 6 \text{Case II.} \right. \\ \hline 5: 6 \quad \pounds 202:13: 6 \text{ Answer.} \end{array}$$

See Example 167.

246. 575 Yards, at 5s. 8d. $\frac{1}{10}$ Yard.
575 Yds.

$$\begin{array}{r} s. \quad d. \\ 5: \text{---} \frac{1}{2} \left| 143:15: \text{---} \text{Case III.} \right. \\ \quad 8 \text{---} \frac{1}{10} \left| \quad 19: 3: 4 \text{Case II.} \right. \\ \hline 5: 8 \quad \pounds 162:18: 4 \text{ Answer.} \end{array}$$

247. 959 Ells, at 5s. 10d. $\frac{1}{10}$ Ell.
959 Ells.

$$\begin{array}{r} s. \quad d. \\ 3: 4 \text{---} \frac{1}{2} \left| 159:16:8 \right\} \text{Case III.} \\ 2: 6 \text{---} \frac{1}{10} \left| 119:17:6 \right\} \\ \hline 5:10 \quad \pounds 279:14: 2 \text{ Answer.} \end{array}$$

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248. 703 Ells, at 6s. 2d. $\frac{1}{10}$ Ell.
703 Ells.

$$\begin{array}{r} s. \quad d. \\ 6: \text{---} \frac{1}{10} \left| 210:18: \text{---} \text{Case IV.} \right. \\ \quad 2 \text{---} \frac{1}{10} \left| \quad 5:17: 2 \text{Case II.} \right. \\ \hline 6: 2 \quad \pounds 216:15: 2 \text{ Answer.} \end{array}$$

249. 871 Yards, at 6s. 3d. $\frac{1}{10}$ Yard.
871 Yds.

$$\begin{array}{r} s. \quad d. \\ 6: \text{---} \frac{1}{10} \left| 261: 6: \text{---} \text{Case IV.} \right. \\ \quad 3 \text{---} \frac{1}{10} \left| \quad 10:17: 9 \text{Case II.} \right. \\ \hline 6: 3 \quad \pounds 272: 3: 9 \text{ Answer.} \end{array}$$

250. 307 Days, at 6s. 4d. $\frac{1}{10}$ Day.
307 Days.

$$\begin{array}{r} s. \quad d. \\ 6: \text{---} \frac{1}{10} \left| 92: 2: \text{---} \text{Case IV.} \right. \\ \quad 4 \text{---} \frac{1}{10} \left| \quad 5: 2: 4 \text{Case II.} \right. \\ \hline 6: 4 \quad \pounds 97: 4: 4 \text{ Answer.} \end{array}$$

251. 607 C. at 6s. 6d. $\frac{1}{10}$ C.
607 C.

$$\begin{array}{r} s. \quad d. \\ 6: \text{---} \frac{1}{10} \left| 182: 2: \text{---} \text{Case IV.} \right. \\ \quad 6 \text{---} \frac{1}{10} \left| \quad 15: 3: 6 \text{Case II.} \right. \\ \hline 6: 6 \quad \pounds 197: 5: 6 \text{ Answer.} \end{array}$$

252. 713 lb. at 6s. 10d. $\frac{1}{10}$ lb.
713 lb.

$$\begin{array}{r} s. \quad d. \\ 6: 8 \text{---} \frac{1}{2} \left| 237: 6: 8 \text{Case III.} \right. \\ \quad 2 \text{---} \frac{1}{10} \left| \quad 5:18:10 \text{Case II.} \right. \\ \hline 6:10 \quad \pounds 243: 5: 6 \text{ Answer.} \end{array}$$

253. 703 C.

TICE.

253. 703 C. at 6s. 11d. $\frac{4}{10}$ C.
703 C.

s. d.
6 : 8 -- $\frac{1}{10}$ } 234 : 6 : 8 Case III.
3 -- $\frac{1}{10}$ } 8 : 15 : 9 Case II.

6 : 11 £ 243 : 2 : 5 Answer.

254. 1431 Yards, at 7s. $\frac{4}{10}$ Yard.
1431 Yds.

s. d.
6 -- $\frac{1}{10}$ } 429 : 6 Case IV.
1 -- $\frac{1}{10}$ } 71 : 11 Case III.

7 £ 500 : 17 Answer.

See Example 201.

255. 751 Yards, at 7s. 2d. $\frac{4}{10}$ Yard.
751 Yds.

s. d.
6 : 8 -- $\frac{1}{10}$ } 250 : 6 : 8 Case III.
6 -- $\frac{1}{10}$ } 18 : 15 : 6 Case II.

7 : 2 £ 269 : 2 : 2 Answer.

256. 157 Ells, at 7s. 4d. $\frac{4}{10}$ Ell.
157 Ells.

s. d.
6 : 8 -- $\frac{1}{10}$ } 52 : 6 : 8 Case III.
8 -- $\frac{1}{10}$ } 5 : 4 : 8 Case II.

7 : 4 £ 57 : 11 : 4 Answer.

See Example 168.

257. 739 C. at 7s. 6d. $\frac{4}{10}$ C.
739 C.

s. d.
5 : -- -- $\frac{1}{10}$ } 184 : 15 : -- } Case III.
2 : 6 -- $\frac{1}{10}$ } 92 : 7 : 6

7 : 6 £ 277 : 2 : 6 Answer.

See Example 177.

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258. 903 Yards, at 7s. 8d. $\frac{4}{10}$ Yard.
903 Yds.

s. d.
6 : 8 -- $\frac{1}{10}$ } 301 : -- } Case III.
1 : -- -- $\frac{1}{10}$ } 45 : 3

7 : 8 £ 346 : 3 Answer.

259. 735 C. at 8s. 2d. $\frac{4}{10}$ C.
735 C.

s. d.
8 : -- -- $\frac{1}{10}$ } 294 : -- : -- Case IV.
2 -- $\frac{1}{10}$ } 6 : 2 : 6 Case II.

8 : 2 £ 300 : 2 : 6 Answer.

260. 719 Bushels, at 8s. 3d. $\frac{4}{10}$ Bushel.
719 Bush.

s. d.
8 : -- -- $\frac{1}{10}$ } 287 : 12 : -- Case IV.
3 -- $\frac{1}{10}$ } 8 : 19 : 9 Case II.

8 : 3 £ 296 : 11 : 9 Answer.

261. 473 Sacks, at 8s. 4d. $\frac{4}{10}$ Sack.
473 Sacks.

s. d.
8 : -- -- $\frac{1}{10}$ } 189 : 4 : -- Case IV.
4 -- $\frac{1}{10}$ } 7 : 17 : 8 Case II.

8 : 4 £ 197 : 1 : 8 Answer.

See Example 178.

262. 713 Dozen, at 8s. 6d. $\frac{4}{10}$ Dozen.
713 Doz.

s. d.
8 : -- -- $\frac{1}{10}$ } 285 : 4 : -- Case IV.
6 -- $\frac{1}{10}$ } 17 : 16 : 6 Case II.

8 : 6 £ 303 : -- : 6 Answer.

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263. 743 C. at 8s. 8d. d^{p} C.

743 C.

$$\begin{array}{r} s. \quad d. \\ 8 : --- \frac{4}{10} \left| \begin{array}{l} 297 : 4 : - \text{Case IV.} \\ 24 : 15 : 4 \text{ Case II.} \end{array} \right. \\ \underline{8 : --- \frac{4}{10}} \end{array}$$

8 : 8 \pounds 321 : 19 : 4 *Answer.*

264. 137 lb. at 9s. 2d. d^{p} lb.

137 lb.

$$\begin{array}{r} s. \quad d. \\ 6 : 8 -- \frac{1}{10} \left| \begin{array}{l} 45 : 13 : 4 \\ 2 : 6 -- \frac{1}{8} \left| \begin{array}{l} 17 : 2 : 6 \end{array} \right\} \text{Case III.} \end{array} \right. \\ \underline{2 : 6 -- \frac{1}{8}} \end{array}$$

9 : 2 \pounds 62 : 15 : 10 *Answer.*

265. 907 Ells, at 9s. 4d. d^{p} Ell.

907 Ells.

$$\begin{array}{r} s. \quad d. \\ 6 : --- \frac{3}{10} \left| \begin{array}{l} 272 : 2 : - \text{Case IV.} \\ 3 : 4 -- \frac{1}{6} \left| \begin{array}{l} 151 : 3 : 4 \text{ Case III.} \end{array} \right. \end{array} \right. \\ \underline{3 : 4 -- \frac{1}{6}} \end{array}$$

9 : 4 \pounds 423 : 5 : 4 *Answer.*

See Example 536.

266. 109 C. at 9s. 8d. d^{p} C.

109 C.

$$\begin{array}{r} s. \quad d. \\ 8 : --- \frac{4}{10} \left| \begin{array}{l} 43 : 12 : - \text{Case IV.} \\ 1 : 8 -- \frac{1}{12} \left| \begin{array}{l} 9 : 1 : 8 \text{ Case III.} \end{array} \right. \end{array} \right. \\ \underline{1 : 8 -- \frac{1}{12}} \end{array}$$

9 : 8 \pounds 52 : 13 : 8 *Answer.*

267. 713 Yards, at 10s. 2d. d^{p} Yard.

713 Yds.

$$\begin{array}{r} s. \quad d. \\ 10 : --- \frac{1}{2} \left| \begin{array}{l} 356 : 10 : - \text{Case III.} \\ 2 : --- \frac{1}{10} \left| \begin{array}{l} 5 : 18 : 10 \text{ Case II.} \end{array} \right. \end{array} \right. \\ \underline{2 : --- \frac{1}{10}} \end{array}$$

10 : 2 \pounds 362 : 8 : 10 *Answer.*

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268. 905 Ells, at 10s. 3d. d^{p} Ell.

905 Ells.

$$\begin{array}{r} s. \quad d. \\ 10 : --- \frac{1}{10} \left| \begin{array}{l} 452 : 10 : - \text{Case III.} \\ 3 : --- \frac{1}{10} \left| \begin{array}{l} 11 : 6 : 3 \text{ Case II.} \end{array} \right. \end{array} \right. \\ \underline{3 : --- \frac{1}{10}} \end{array}$$

10 : 3 \pounds 463 : 16 : 3 *Answer.*

269. 125 C. at 10s. 4d. d^{p} C.

125 C.

$$\begin{array}{r} s. \quad d. \\ 10 : --- \frac{1}{10} \left| \begin{array}{l} 62 : 10 : - \text{Case III.} \\ 4 : --- \frac{1}{10} \left| \begin{array}{l} 2 : 1 : 8 \text{ Case II.} \end{array} \right. \end{array} \right. \\ \underline{4 : --- \frac{1}{10}} \end{array}$$

10 : 4 \pounds 64 : 11 : 8 *Answer.*

270. 175 Yards, at 10s. 6d. d^{p} Yard.

175 Yds.

$$\begin{array}{r} s. \quad d. \\ 10 : --- \frac{1}{10} \left| \begin{array}{l} 87 : 10 : - \text{Case III.} \\ 6 : --- \frac{1}{10} \left| \begin{array}{l} 4 : 7 : 6 \text{ Case II.} \end{array} \right. \end{array} \right. \\ \underline{6 : --- \frac{1}{10}} \end{array}$$

10 : 6 \pounds 91 : 17 : 6 *Answer.*

271. 571 Dozen, at 10s. 8d. d^{p} Dozen.

571 Doz.

$$\begin{array}{r} s. \quad d. \\ 10 : --- \frac{1}{10} \left| \begin{array}{l} 285 : 10 : - \text{Case III.} \\ 8 : --- \frac{1}{10} \left| \begin{array}{l} 19 : - : 8 \text{ Case II.} \end{array} \right. \end{array} \right. \\ \underline{8 : --- \frac{1}{10}} \end{array}$$

10 : 8 \pounds 304 : 10 : 8 *Answer.*

272. 714 lb. at 11s. d^{p} lb.

714 lb.

$$\begin{array}{r} s. \\ 10 : --- \frac{1}{10} \left| \begin{array}{l} 357 : - \\ 1 : --- \frac{1}{10} \left| \begin{array}{l} 35 : 14 \end{array} \right\} \text{Case III.} \end{array} \right. \\ \underline{1 : --- \frac{1}{10}} \end{array}$$

11 \pounds 392 : 14 *Answer.*

See Example 203.

273. 713 Gallons,

TICE.

273. 713 Gallons, at 11s. 4d. d^{p} Gallon.

713 Gall.

$$\begin{array}{r} s. \quad d. \\ 8: \text{---} \text{---} \frac{4}{10} \left| \begin{array}{l} 285: 4: \text{---} \text{Case IV.} \\ 3: 4: \text{---} \frac{1}{8} \end{array} \right. 118: 16: 8 \text{ Case III.} \\ \hline 11: 4 \quad \text{£ } 404: \text{---}: 8 \text{ Answer.} \end{array}$$

274. 707 lb. at 11s. 8d. d^{p} lb.

707 lb.

$$\begin{array}{r} s. \quad d. \\ 10: \text{---} \text{---} \frac{1}{2} \left| \begin{array}{l} 353: 10: \text{---} \text{Case III.} \\ 1: 8: \text{---} \frac{1}{12} \end{array} \right. 58: 18: 4 \text{ Case II.} \\ \hline 11: 8 \quad \text{£ } 412: 8: 4 \text{ Answer.} \end{array}$$

See Example 180.

275. 101 Ells, at 12s. 2d. d^{p} Ell.

101 Ells.

$$\begin{array}{r} s. \quad d. \\ 12: \text{---} \text{---} \frac{6}{10} \left| \begin{array}{l} 60: 12: \text{---} \text{Case IV.} \\ 2: \text{---} \frac{1}{12} \end{array} \right. \text{---}: 16: 10 \text{ Case III.} \\ \hline 12: 2 \quad \text{£ } 61: 8: 10 \text{ Answer.} \end{array}$$

276. 631 C. at 12s. 3d. d^{p} C.

631 C.

$$\begin{array}{r} s. \quad d. \\ 12: \text{---} \text{---} \frac{6}{10} \left| \begin{array}{l} 378: 12: \text{---} \text{Case III.} \\ 3: \text{---} \frac{1}{12} \end{array} \right. 7: 17: 9 \text{ Case II.} \\ \hline 12: 3 \quad \text{£ } 386: 9: 9 \text{ Answer.} \end{array}$$

277. 761 Ells, at 12s. 4d. d^{p} Ell.

761 Ells.

$$\begin{array}{r} s. \quad d. \\ 12: \text{---} \text{---} \frac{6}{10} \left| \begin{array}{l} 456: 12: \text{---} \text{Case III.} \\ 4: \text{---} \frac{1}{12} \end{array} \right. 12: 13: 8 \text{ Case II.} \\ \hline 12: 4 \quad \text{£ } 469: 5: 8 \text{ Answer.} \end{array}$$

Case VIII. 69

278. 703 lb. at 12s. 6d. d^{p} lb.

703 lb.

$$\begin{array}{r} s. \quad d. \\ 12: \text{---} \text{---} \frac{6}{10} \left| \begin{array}{l} 421: 16: \text{---} \text{Case IV.} \\ 6: \text{---} \frac{1}{12} \end{array} \right. 17: 11: 6 \text{ Case II.} \\ \hline 12: 6 \quad \text{£ } 439: 7: 6 \text{ Answer.} \end{array}$$

See Example 182.

279. 731 lb. at 12s. 8d. d^{p} lb.

731 lb.

$$\begin{array}{r} s. \quad d. \\ 12: \text{---} \text{---} \frac{6}{10} \left| \begin{array}{l} 438: 12: \text{---} \text{Case III.} \\ 8: \text{---} \frac{1}{12} \end{array} \right. 24: 7: 4 \text{ Case II.} \\ \hline 12: 8 \quad \text{£ } 462: 19: 4 \text{ Answer.} \end{array}$$

280. 103 Yards, at 13s. d^{p} Yard.

103 Yds.

$$\begin{array}{r} s. \\ 12: \text{---} \text{---} \frac{6}{10} \left| \begin{array}{l} 61: 16 \text{ Case IV.} \\ 1: \text{---} \frac{1}{12} \end{array} \right. 5: 3 \text{ Case III.} \\ \hline 13 \quad \text{£ } 66: 19 \text{ Answer.} \end{array}$$

281. 177 C. at 13s. 8d. d^{p} C.

177 C.

$$\begin{array}{r} s. \quad d. \\ 12: \text{---} \text{---} \frac{6}{10} \left| \begin{array}{l} 106: 4 \text{ Case IV.} \\ 1: 8: \text{---} \frac{1}{12} \end{array} \right. 14: 15 \text{ Case III.} \\ \hline 13: 8 \quad \text{£ } 120: 19 \text{ Answer.} \end{array}$$

282. 713 lb. at 14s. 2d. d^{p} lb.

713 lb.

$$\begin{array}{r} s. \quad d. \\ 14: \text{---} \text{---} \frac{7}{10} \left| \begin{array}{l} 499: 2: \text{---} \text{Case IV.} \\ 2: \text{---} \frac{1}{12} \end{array} \right. 5: 18: 10 \text{ Case II.} \\ \hline 14: 2 \quad \text{£ } 505: \text{---}: 10 \text{ Answer.} \end{array}$$

283. 317 oz.

70 Case VIII.

283. 317 oz. at 14s. 3d. $\frac{1}{8}$ oz.

$$\begin{array}{r} \text{s. d.} \\ 14: \text{---} \frac{7}{10} \left| \begin{array}{l} 221: 18: \text{--- Case IV.} \\ 3: 19: 3 \text{ Case II.} \end{array} \right. \end{array}$$

14: 3 £ 225: 17: 3 Answer.

284. 36 Days, at 14s. 4d. $\frac{1}{8}$ Day.

$$\begin{array}{r} \text{s. d.} \\ 14: \text{---} \frac{7}{10} \left| \begin{array}{l} 255: 10: \text{--- Case IV.} \\ 4: 1: 8 \text{ Case II.} \end{array} \right. \end{array}$$

14: 4 £ 261: 11: 8 Answer.

285. 879 Yards, at 15s. $\frac{1}{4}$ Yard.

$$\begin{array}{r} \text{s.} \\ 10: \text{---} \frac{1}{4} \left| \begin{array}{l} 439: 10 \\ 5: 15 \end{array} \right\} \text{Case III.} \end{array}$$

15 £ 659: 5 Answer.

See Example 184, and 217.

286. 377 Ells, at 15s. 4d. $\frac{1}{8}$ Ell.

$$\begin{array}{r} \text{s. d.} \\ 12: \text{---} \frac{6}{10} \left| \begin{array}{l} 226: 4: \text{--- Case IV.} \\ 3: 4: \frac{1}{8} \left| \begin{array}{l} 62: 16: 8 \text{ Case III.} \end{array} \right. \end{array} \right. \end{array}$$

15: 4 £ 289: ---: 8 Answer.

See Example 546.

287 107 Ells, at 15s. 8d. $\frac{1}{8}$ Ell.

$$\begin{array}{r} \text{s. d.} \\ 14: \text{---} \frac{7}{10} \left| \begin{array}{l} 74: 18: \text{--- Case IV.} \\ 1: 8: \frac{1}{8} \left| \begin{array}{l} 8: 18: 4 \text{ Case III.} \end{array} \right. \end{array} \right. \end{array}$$

15: 8 £ 83: 16: 4 Answer.

PRAC.

288. 171 C. at 16s. 2d. $\frac{1}{8}$ C.

$$\begin{array}{r} \text{s. d.} \\ 16: \text{---} \frac{2}{10} \left| \begin{array}{l} 136: 16: \text{--- Case IV.} \\ 2: \frac{1}{10} \left| \begin{array}{l} 1: 8: 6 \text{ Case III.} \end{array} \right. \end{array} \right. \end{array}$$

16: 2 £ 138: 4: 6 Answer.

289. 102 oz. at 16s. 3d. $\frac{1}{8}$ oz.

$$\begin{array}{r} \text{s. d.} \\ 16: \text{---} \frac{3}{10} \left| \begin{array}{l} 81: 12: \text{--- Case IV.} \\ 3: \frac{1}{10} \left| \begin{array}{l} 1: 5: 6 \text{ Case II.} \end{array} \right. \end{array} \right. \end{array}$$

16: 3 £ 82: 17: 6 Answer.

290. 107 C. at 16s. 4d. $\frac{1}{8}$ C.

$$\begin{array}{r} \text{s. d.} \\ 16: \text{---} \frac{4}{10} \left| \begin{array}{l} 85: 12: \text{--- Case IV.} \\ 4: \frac{1}{10} \left| \begin{array}{l} 1: 15: 8 \text{ Case III.} \end{array} \right. \end{array} \right. \end{array}$$

16: 4 £ 87: 7: 8 Answer.

291. 809 C. at 16s. 6d. $\frac{1}{8}$ C.

$$\begin{array}{r} \text{s. d.} \\ 16: \text{---} \frac{6}{10} \left| \begin{array}{l} 647: 4: \text{--- Case IV.} \\ 6: \frac{1}{10} \left| \begin{array}{l} 20: 4: 6 \text{ Case II.} \end{array} \right. \end{array} \right. \end{array}$$

16: 6 £ 667: 8: 6 Answer.

292. 871 oz. at 17s. $\frac{1}{8}$ oz.

$$\begin{array}{r} \text{s.} \\ 16: \text{---} \frac{1}{10} \left| \begin{array}{l} 696: 16 \text{ Case IV.} \\ 1: \frac{1}{10} \left| \begin{array}{l} 43: 11 \text{ Case III.} \end{array} \right. \end{array} \right. \end{array}$$

17 £ 740: 7 Answer.

293. 109 C.

TICE.

Case VIII. 71

293. 109 C. at 17s. 8d. $\frac{d}{C}$ C.
109 C.

$$\begin{array}{r} s. \quad d. \\ 16 : --- \frac{8}{10} \\ 1 : 8 \frac{1}{12} \end{array} \left| \begin{array}{l} 87 : 4 : --- \text{Case IV.} \\ 9 : 1 : 8 \text{ Case II.} \end{array} \right.$$

$$17 : 8 \quad \text{£ } 96 : 5 : 8 \text{ Answer.}$$

294. 127 Yards, at 18s. 2d. $\frac{d}{Y}$ Yard.
127 Yds.

$$\begin{array}{r} s. \quad d. \\ 18 : --- \frac{2}{10} \\ 2 \frac{1}{12} \end{array} \left| \begin{array}{l} 114 : 6 : --- \text{Case IV.} \\ 1 : 1 : 2 \text{ Case II.} \end{array} \right.$$

$$18 : 2 \quad \text{£ } 115 : 7 : 2 \text{ Answer.}$$

295. 907 Ells, at 18s. 3d. $\frac{d}{E}$ Ell.
907 Ells.

$$\begin{array}{r} s. \quad d. \\ 18 : --- \frac{3}{10} \\ 3 \frac{1}{12} \end{array} \left| \begin{array}{l} 816 : 6 : --- \text{Case IV.} \\ 11 : 6 : 9 \text{ Case II.} \end{array} \right.$$

$$18 : 3 \quad \text{£ } 827 : 12 : 9 \text{ Answer.}$$

296. 203 C. at 18s. 4d. $\frac{d}{C}$ C.
203 C.

$$\begin{array}{r} s. \quad d. \\ 18 : --- \frac{4}{10} \\ 4 \frac{1}{12} \end{array} \left| \begin{array}{l} 182 : 14 : --- \text{Case IV.} \\ 3 : 7 : 8 \text{ Case II.} \end{array} \right.$$

$$18 : 4 \quad \text{£ } 186 : 1 : 8 \text{ Answer.}$$

See Example 188, and 214.

301.

379 C. at 19s. 8d. $\frac{d}{C}$ C.

$$\begin{array}{r} s. \quad d. \\ 18 : --- \frac{8}{10} \\ 1 : 8 \frac{1}{12} \end{array} \left| \begin{array}{l} 341 : 2 : --- \text{Case IV.} \\ 31 : 11 : 8 \text{ Case II.} \end{array} \right.$$

$$19 : 8 \quad \text{£ } 372 : 13 : 8 \text{ Answer.}$$

See Example 210.

297. 903 Yards, at 18s. 6d. $\frac{d}{Y}$ Yard.
903 Yds.

$$\begin{array}{r} s. \quad d. \\ 18 : --- \frac{6}{10} \\ 6 \frac{1}{12} \end{array} \left| \begin{array}{l} 812 : 14 : --- \text{Case IV.} \\ 22 : 11 : 6 \text{ Case II.} \end{array} \right.$$

$$18 : 6 \quad \text{£ } 835 : 5 : 6 \text{ Answer.}$$

298. 973 Dozen, at 18s. 8d. $\frac{d}{D}$ Dozen.
973 Doz.

$$\begin{array}{r} s. \quad d. \\ 18 : --- \frac{8}{10} \\ 8 \frac{1}{12} \end{array} \left| \begin{array}{l} 875 : 14 : --- \text{Case IV.} \\ 32 : 8 : 8 \text{ Case II.} \end{array} \right.$$

$$18 : 8 \quad \text{£ } 908 : 2 : 8 \text{ Answer.}$$

299. 759 C. at 19s. $\frac{d}{C}$ C.
759 C.

$$\begin{array}{r} s. \\ 18 \frac{1}{12} \frac{9}{10} \\ 1 \frac{1}{12} \end{array} \left| \begin{array}{l} 683 : 2 \text{ Case IV.} \\ 37 : 19 \text{ Case II.} \end{array} \right.$$

$$19 \quad \text{£ } 721 : 1 \text{ Answer.}$$

See Example 213.

300. 473 C. at 19s. 4d. $\frac{d}{C}$ C.
473 C.

$$\begin{array}{r} s. \quad d. \\ 16 : --- \frac{4}{10} \\ 3 : 4 \frac{1}{12} \end{array} \left| \begin{array}{l} 378 : 8 : --- \text{Case IV.} \\ 78 : 16 : 8 \end{array} \right.$$

$$19 : 4 \quad \text{£ } 457 : 4 : 8 \text{ Answer.}$$

See Example 212, and 515.

Examples

*Examples for the Learner's Exercise.**Answer.*

What cost 719 lb. at 1s. 2d. per lb?	—	£ 41 : 18 : 10
What cost 907 Yards, at 1s. 3d. per Yard?	—	56 : 13 : 9
At 1s. 4d. per Ell, what cost 173 Ells?	—	11 : 10 : 8
At 1s. 6d. per Foot, what cost 817 Feet?	—	61 : 5 : 6
At 1s. 10d. per Dozen, what cost 171 Dozen?	—	15 : 13 : 6
At 1s. 11d. per Ounce, what cost 107 Ounces?	—	10 : 5 : 1
What cost 175 Yards, at 2s. 2d. per Yard?	—	18 : 19 : 2
What cost 109 Ells, at 2s. 3d. per Ell?	—	12 : 5 : 3
What cost 703 lb. at 2s. 4d. per lb?	—	82 : — : 4
What cost 913 Pair, at 2s. 8d. per Pair?	—	121 : 14 : 8
What cost 103 Dozen, at 2s. 9d. per Dozen?	—	14 : 3 : 3
At 2s. 10d. per Ell, what cost 173 Ells?	—	24 : 10 : 2
At 3s. 2d. per Yard, what cost 179 Yards?	—	28 : 6 : 10
At 3s. 6d. per Ell, what cost 807 Ells?	—	141 : 4 : 6
At 3s. 7d. per Yard, what cost 173 Yards?	—	30 : 19 : 11
At 3s. 8d. per Bushel, what cost 175 Bushels?	—	32 : 1 : 8
At 3s. 10d. per lb. what cost 170 lb?	—	32 : 11 : 8
At 4s. 2d. per Ounce, what cost 871 Ounces?	—	181 : 9 : 2
At 4s. 3d. per Ell, what cost 803 Ells?	—	170 : 12 : 9
At 4s. 4d. per C. what cost 109 C.?	—	23 : 12 : 4
What cost 173 Ells, at 4s. 6d. per Ell?	—	38 : 18 : 6
At 4s. 8d. per Bushel, what cost 175 Bushels?	—	40 : 16 : 8
At 5s. 2d. per C. what cost 177 C.?	—	45 : 14 : 6
At 5s. 3d. per Ell, what cost 717 Ells?	—	188 : 4 : 3
At 5s. 4d. per Yard, what cost 771 Yards?	—	205 : 12 : —
If 1 C. cost 5s. 6d. what will 817 C. cost?	—	224 : 13 : 6
At 5s. 8d. per Dozen, what cost 373 Dozen?	—	105 : 13 : 8
At 5s. 10d. per Yard, what cost 733 Yards?	—	213 : 15 : 10
What cost 717 lb. at 6s. 2d. per lb.?	—	221 : 1 : 6
What cost 817 Ounces, at 6s. 3d. per Ounce?	—	255 : 6 : 3
What is the Price of 831 Ounces, at 6s. 4d. per Ounce?	—	263 : 3 : —
At 6s. 6d. per Yard, what cost 127 Yards?	—	41 : 5 : 6
What cost 737 Yards, at 6s. 10d. per Yard?	—	251 : 16 : 2
At 6s. 11d. per lb. what cost 827 lb?	—	286 : — : 1
If 1 C. cost 7s. 2d. what cost 179 C.?	—	64 : 2 : 10
At 7s. 4d. per Ell, what cost 279 Ells?	—	102 : 6 : —
At 7s. 6d. per Gros, what cost 804 Gros?	—	301 : 10 : —
What cost 871 Ells, at 7s. 8d. per Ell?	—	333 : 17 : 8
What cost 137 C. at 8s. 2d. per C.?	—	55 : 18 : 10
At 8s. 3d. per Bushel, what cost 873 Bushel?	—	360 : 2 : 3
At 8s. 4d. per Sack, what cost 271 Sacks?	—	112 : 18 : 4

At

	Answer.
At 8s. 6d. per Dozen, what cost 813 Dozen? —	£ 345 : 10 : 6
What cost 173 C. at 8s. 8d. per C. ? —	74 : 19 : 4
If 1 lb. cost 9s. 2d. what cost 871 lb. ? —	399 : 4 : 2
If 1 C. cost 9s. 4d. what cost 171 C. ? —	79 : 16 : —
What cost 103 C. at 9s. 8d. per C. ? —	49 : 15 : 6
What cost 831 Yards, at 10s. 2d. per Yard ? —	422 : 8 : 6
At 10s. 3d. per Dozen, what cost 373 Dozen ? —	191 : 3 : 3
At 10s. 4d. per C. what cost 317 C. ? —	163 : 15 : 8
What cost 871 Yards, at 10s. 6d. per Yard ? —	457 : 5 : 6
If 1 C. cost 10s. 8d. what cost 371 C. ? —	197 : 17 : 4
What cost 703 lb. at 11s. 4d. per lb. ? —	398 : 7 : 4
If 1 C. cost 11s. 8d. what cost 173 C. ? —	100 : 18 : 4
What cost 139 Ells, at 12s. 2d. per Ell ? —	84 : 11 : 2
At 12s. 3d. per C. what cost 179 C. ? —	109 : 12 : 9
If 1 Ell cost 12s. 4d. what cost 171 Ells ? —	105 : 9 : —
At 12s. 6d. per lb. what cost 987 lb. ? —	616 : 17 : 6
At 12s. 8d. per Yard, what cost 789 Yards ? —	499 : 14 : —
At 13s. per C. what cost 103 C. ? —	66 : 19 : —
At 13s. 8d. per Yard, what cost 321 Yards ? —	219 : 7 : —
If 1 Ell cost 14s. 2d. what cost 897 Ells ? —	635 : 7 : 6
At 14s. 3d. per lb. what cost 713 lb. ? —	508 : — : 3
If 1 C. cost 14s. 4d. what cost 137 C. ? —	98 : 3 : 8
At 14s. 6d. per C. what cost 731 C. ? —	529 : 19 : 6
At 14s. 8d. per C. what cost 321 C. ? —	235 : 8 : —
At 15s. per Quarter, what cost 135 Quarters ? —	101 : 5 : —
At 15s. 4d. per Dozen, what cost 917 Dozen ? —	703 : — : 8
What cost 873 Ells, at 15s. 8d. per Ell ? —	683 : 17 : —
At 16s. 2d. per C. what cost 137 C. ? —	110 : 14 : 10
At 16s. 3d. per C. what cost 371 C. ? —	301 : 8 : 9
At 16s. 4d. per Gros, what cost 307 Gros ? —	250 : 14 : 4
If 1 Dozen cost 16s. 6d. what cost 379 Dozen ? —	312 : 13 : 6
What cost 817 C. at 17s. per C. ? —	694 : 9 : —
At 17s. 8d. per Ell, what cost 171 Ells ? —	151 : 1 : —
At 18s. 2d. per Yard, what cost 375 Yards ? —	340 : 12 : 6
At 18s. 3d. per Ell, what cost 795 Ells ? —	725 : 8 : 9
What cost 879 lb. at 18s. 6d. per lb. ? —	813 : 1 : 6
What cost 171 Gros, at 18s. 8d. per Gros ? —	159 : 12 : —
What cost 871 Pair, at 19s. per Pair ? —	827 : 9 : —
What cost 907 Ells, at 19s. 4d. per Ell ? —	876 : 15 : 4
What cost 137 Gros, at 19s. 8d. per Gros ? —	134 : 14 : 4

C A S E . IX.

WHEN the Price of the Integer is less than a Penny.

R U L E.

Divide the given Quantity by the aliquot Parts of a Penny, the Quotient will be Pence; bring the Pence into Shillings, and the Shillings into Pounds.

Examples.

302. 2731 lb. at $\frac{1}{4}d.$ q^{d} lb.

2731 lb.

$$\begin{array}{r} d. \\ \frac{1}{4} - \frac{1}{4} \end{array} \left| \begin{array}{l} 682 \frac{1}{2} \end{array} \right.$$

$$\begin{array}{r} s. \\ 1 - \frac{1}{12} \end{array} \left| \begin{array}{l} 56 : 10 \end{array} \right.$$

$$\begin{array}{r} \text{£} \\ 1 - \frac{1}{20} \end{array} \left| \begin{array}{l} 2 : 16 : 10 \frac{1}{2} \end{array} \right. \text{Answer.}$$

See Example 383.

Pound, divide 56 Shillings by 20, the Quotient 2 will be Pounds, the Remainder 16 will be Shillings.

2731 lb. at a Farthing q^{d} lb. will come to 2731 Farthings.

A Farthing being $\frac{1}{4}$ Part of a Penny, divide 2731 by 4, the Quotient 682 will be Pence, the Remainder 3 will be Farthings.

A Penny being $\frac{1}{12}$ of a Shilling, divide 682 Pence by 12, the Quotient 56 will be Shillings, the Remainder 10 will be Pence.

A Shilling being $\frac{1}{20}$ Part of a Pound, divide 56 Shillings by 20, the Quotient 2 will be Pounds, the Remainder 16 will be Shillings.

303. 871 oz. at $\frac{1}{2}d.$ q^{d} oz.

871 oz.

$$\begin{array}{r} d. \\ \frac{1}{2} - \frac{1}{2} \end{array} \left| \begin{array}{l} 435 \frac{1}{2} \end{array} \right.$$

$$\begin{array}{r} s. \\ 1 - \frac{1}{12} \end{array} \left| \begin{array}{l} 36 : 3 \end{array} \right.$$

$$\begin{array}{r} \text{£} \\ 1 - \frac{1}{20} \end{array} \left| \begin{array}{l} 1 : 16 : 3 \frac{1}{2} \end{array} \right. \text{Answer.}$$

See Example 384.

871 oz. at a $\frac{1}{2}d.$ q^{d} oz. will come to 871 Halfpence.

A Halfpenny being $\frac{1}{2}$ of a Penny, divide 871 by 2, the Quotient 435 will be Pence, the Remainder 1 will be a Halfpenny.

Proceed with the Pence, &c. as in the preceding Example.

304. 705 Yards, at $\frac{1}{4}d.$ q^{d} Yard.

705 Yds.

$$\begin{array}{r} d. \\ \frac{1}{4} - \frac{1}{4} \end{array} \left| \begin{array}{l} 356 \frac{1}{4} \\ 172 \frac{1}{2} \end{array} \right. \left. \begin{array}{l} \\ \end{array} \right\} \text{Add.}$$

$$\begin{array}{r} s. \\ \frac{1}{2} - \frac{1}{2} \end{array} \left| \begin{array}{l} 528 \frac{1}{2} \end{array} \right.$$

$$\begin{array}{r} \text{£} \\ 1 - \frac{1}{12} \end{array} \left| \begin{array}{l} 44 \end{array} \right.$$

$$\begin{array}{r} \text{£} \\ 1 - \frac{1}{20} \end{array} \left| \begin{array}{l} 2 : 4 : - \frac{1}{2} \end{array} \right. \text{Answer.}$$

See Example 385.

705 Yards, at a $\frac{1}{4}d.$ q^{d} Yard, will come to 352 $\frac{1}{2}d.$

A Farthing being $\frac{1}{4}$ Part of a Penny, $\frac{1}{4}$ Part of the Price of 705 Yards at 1d. q^{d} Yard, or $\frac{1}{4}$ of 705d. i. e. 176 $\frac{1}{4}d.$ will be the Price of 705 Yards at $\frac{1}{4}d.$ q^{d} Yard; the Sum of these Quotients will be the Price of 705 Yards at $\frac{1}{4}d.$ q^{d} Yard, in Pence and Farthings, then bring the Pence into Shillings and Pounds.

Some

TICE.

Case X. 75

Some prefer taking *Parts of Parts*, rather than *Parts of the whole Price*, and then the *three Farthings* in the above Example may be taken thus, a *Halfpenny* is the *Half* of a *Penny*, and a *Farthing* is the *Half* of a *Halfpenny*, &c.

305. 705 Yards, at $\frac{1}{4}d.$ d^{d} Yard.

$$\begin{array}{r} d. \\ \frac{1}{4} - \frac{1}{4} \\ \frac{1}{4} - \frac{1}{4} \\ \frac{1}{4} - \frac{1}{4} \end{array} \left\{ \begin{array}{l} 352\frac{1}{4} \\ 176\frac{1}{4} \end{array} \right\} \text{Add.}$$

d. 528 $\frac{1}{4}$ Answer.

After the same manner
work the Examples
from $1\frac{1}{4}d.$ to $2d.$

See Example 385.

Examples for the Learner's Exercise.

Answer.

What cost 17371 Yards, at $\frac{1}{4}d.$ d^{d} Yard? — £ 18 : 1 : 10What cost 8715 Ells, at $\frac{1}{2}d.$ d^{d} Ell? — 18 : 3 : 1What cost 17371 lb. at $\frac{1}{4}d.$ d^{d} lb? — 54 : 5 : 8

C A S E X.

WHEN the Price of the Integer is from $1\frac{1}{4}d.$ to $2d.$

R U L E.

First take some Part of the given Price that is an aliquot Part of a Shilling, as in Case I. and for the remaining Part of the Price, let it be taken out of the foregoing Part.

Add the Quotients together, the Sum will be the Answer.

Examples.

306. 8731 Yards, at $1\frac{1}{4}d.$ d^{d} Yard.

8731 Yds.

$$\begin{array}{r} d. \\ 1 \dots \frac{1}{2} \\ \frac{1}{4} \dots \frac{1}{4} \end{array} \left\{ \begin{array}{l} 727 : 7 \\ 181 : 10\frac{1}{2} \end{array} \right.$$

909 : 5 $\frac{1}{2}$ s. £ 45 : 9 : 5 $\frac{1}{2}$ Answer.

* A Farthing being $\frac{1}{4}$ Part of a Penny, therefore $\frac{1}{4}$ Part of the Price of 8731 Yards at $1d.$ d^{d} Yard, will be the Price of 8731 Yards at $\frac{1}{4}d.$ d^{d} Yard. Add the Quotients together, the Sum will be the Answer in Shillings.

Finish as before.

See Example 386.

L e

307. 1371 ozs

307. 1371 oz. at $1\frac{3}{4}d.$ $\frac{1}{4}d$ oz.

1371 oz.
 $d.$
 $1 \frac{1}{2} - \frac{1}{8} = 1 \frac{3}{8}$
 $\frac{1}{4} - \frac{1}{8} = \frac{1}{8}$
 $171 : 4 \frac{1}{2}$
 $28 : 6 \frac{1}{4}$

 $199 : 11 \frac{1}{4}$

 $s.$
 $1 - \frac{1}{30} = \frac{29}{30}$

$\mathcal{L} 9 : 19$	$: 11 \frac{1}{4}$	<i>Answer.</i>
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• *A Farthing being $\frac{1}{4}$ Part of $1\frac{1}{2}$ d. therefore $\frac{1}{8}$ Part of the Price of 1371 oz. at $1\frac{1}{2}$ d. ff oz. will be the Price of 1371 oz. at $\frac{1}{4}$ d. ff oz. Add the Quotients together, and finish as above.*

Examples for the Learner's Exercise.

At $1\frac{1}{4}d.$ $\frac{40}{11}$ lb. what cost 837 lb.?

Answer.

$$\text{£ } 4 : 7 : 2\frac{3}{4}$$

What cost 471 Yards, at $1\frac{3}{4}d.$ ~~per~~ Yard?

$$3 : 8 : 8\frac{1}{4}$$

C A S E X I.

WHEN the *Price* of the Integer is *from 2d. to 2s.*

R U L E.

Divide the given Quantity by some Part, or Parts that are aliquot Parts of a Pound [as in Cases II, and III] and for the remaining Part of the Price, let it be taken out of the foregoing Part or Parts as before. Add the Quotients together, their Sum will be the Answer in Pounds, &c.

Examples.

308. 871 lb. at $2\frac{1}{4}d$. $\frac{1}{4}$ lb.

d. 871 lb.

$2 \dots \frac{1}{4}$	$\frac{1}{8}$	$\left. \begin{array}{l} 7 : 5 : 2 \\ \hline : 18 : 1\frac{1}{4} \end{array} \right\} \text{Add.}$
$\frac{1}{4}$	$\frac{1}{8}$	
$2\frac{1}{4}$		$\pounds 8 : 3 : 3\frac{1}{2} \text{ Answer.}$

* A Farthing is $\frac{1}{4}$ Part of 2d.
therefore $\frac{1}{4}$ Part of the Price of 871 lb.
at 2d. d lb. will be the Price of
871 lb. at $\frac{1}{4}d$ d lb.

Add those Quotients together, their Sum will be the Answer.

309. 371 Yards, at $2\frac{1}{2}d.$ $\frac{1}{2}d.$
Yard

d. $37174.$

2	$-\frac{1}{120}$	$3 : 1 : 10$
$\frac{1}{2}$	$-\frac{1}{4}$	$- : 15 : 5\frac{1}{2}$
$2\frac{1}{2}$	\mathcal{L}	$3 : 17 : 3\frac{1}{2} \text{ Answer.}$

See Example 387.

310. 871 Feet, at $2\frac{1}{2}$ d. $\frac{1}{2}$ Foot.

871 Feet.

d.					
2	—	11	7 : 5 : 2		
$\frac{1}{2}$	—	14	1 : 16 : $3\frac{1}{2}$		
$\frac{1}{4}$	—	28	— : 18 : $1\frac{1}{4}$		
$2\frac{3}{4}$		£	9 : 19 : $7\frac{1}{4}$	Answer.	

See Example 388.

311. 713 Yards,

TICE.

Case XI. 77

311. 713 Yards, at $3\frac{1}{4}d.$ pp Yard.
713 Yds.

$$\begin{array}{r} d. \\ 3 - \frac{1}{80} \left| \begin{array}{l} 8 : 18 : 3 \\ \frac{1}{4} - \frac{1}{12} \quad - : 14 : 10\frac{1}{4} \end{array} \right. \\ \hline 3\frac{1}{4} \quad \text{£ } 9 : 13 : 1\frac{1}{4} \text{ Answer.} \end{array}$$

312. 3797 lb. at $3\frac{1}{2}d.$ pp lb.
3797 lb.

$$\begin{array}{r} d. \\ 3 - \frac{1}{80} \left| \begin{array}{l} 47 : 9 : 3 \\ \frac{1}{2} - \frac{1}{6} \quad 7 : 18 : 2\frac{1}{2} \end{array} \right. \\ \hline 3\frac{1}{2} \quad \text{£ } 55 : 7 : 5\frac{1}{2} \text{ Answer.} \end{array}$$

313. 8713 Yards, at $3\frac{1}{2}d.$ pp Yard.
8713 Yds.

$$\begin{array}{r} d. \\ 3 - \frac{1}{80} \left| \begin{array}{l} 108 : 18 : 3 \\ \frac{1}{4} - \frac{1}{4} \quad 27 : 4 : 6\frac{1}{4} \end{array} \right. \\ \hline 3\frac{1}{4} \quad \text{£ } 136 : 2 : 9\frac{1}{4} \text{ Answer.} \end{array}$$

See Example 389.

314. 8071 oz. at $4\frac{1}{4}d.$ pp oz.
8071 oz.

$$\begin{array}{r} d. \\ 3 - \frac{1}{80} \left| \begin{array}{l} 100 : 17 : 9 \\ 1 - \frac{1}{4} \quad 33 : 12 : 7 \\ \frac{1}{4} - \frac{1}{4} \quad 8 : 8 : 1\frac{1}{4} \end{array} \right. \\ \hline 4\frac{1}{4} \quad \text{£ } 142 : 18 : 5\frac{1}{4} \text{ Answer.} \end{array}$$

315. 873 oz. at $4\frac{1}{2}d.$ pp oz.
873 oz.

$$\begin{array}{r} d. \\ 4 - \frac{1}{80} \left| \begin{array}{l} 14 : 11 : - \\ \frac{1}{2} - \frac{1}{8} \quad 1 : 16 : 4\frac{1}{2} \end{array} \right. \\ \hline 4\frac{1}{2} \quad \text{£ } 16 : 7 : 4\frac{1}{2} \text{ Answer.} \end{array}$$

See Example 138.

316. 713 lb. at $4\frac{1}{4}d.$ pp lb.
713 lb.

$$\begin{array}{r} d. \\ 4 - \frac{1}{80} \left| \begin{array}{l} 11 : 17 : 8 \\ \frac{1}{2} - \frac{1}{8} \quad 1 : 9 : 8\frac{1}{2} \\ \frac{1}{4} - \frac{1}{2} \quad - : 14 : 10\frac{1}{4} \end{array} \right. \\ \hline 4\frac{1}{4} \quad \text{£ } 14 : 2 : 2\frac{1}{4} \text{ Answer.} \end{array}$$

See Example 522.

317. 731 Ells, at $5d.$ pp Ell.
731 Ells.

$$\begin{array}{r} d. \\ 4 - \frac{1}{80} \left| \begin{array}{l} 12 : 3 : 8 \\ 1 - \frac{1}{4} \quad 3 : - : 11 \end{array} \right. \\ \hline 5 \quad \text{£ } 15 : 4 : 7 \text{ Answer.} \end{array}$$

See Example 390.

318. 879 Yards, at $5\frac{1}{4}d.$ pp Yard.
879 Yds.

$$\begin{array}{r} d. \\ 4 - \frac{1}{80} \left| \begin{array}{l} 14 : 13 : - \\ 1 - \frac{1}{4} \quad 3 : 13 : 3 \\ \frac{1}{4} - \frac{1}{4} \quad - : 18 : 3\frac{1}{2} \end{array} \right. \\ \hline 5\frac{1}{4} \quad \text{£ } 19 : 4 : 6\frac{1}{4} \text{ Answer.} \end{array}$$

See Example 391, and 523.

319. 713 Ells, at $5\frac{1}{2}d.$ pp Ell.
713 Ells.

$$\begin{array}{r} d. \\ 4 - \frac{1}{80} \left| \begin{array}{l} 11 : 17 : 8 \\ 1 - \frac{1}{4} \quad 2 : 19 : 5 \\ \frac{1}{2} - \frac{1}{2} \quad 1 : 9 : 8\frac{1}{2} \end{array} \right. \\ \hline 5\frac{1}{2} \quad \text{£ } 16 : 6 : 9\frac{1}{2} \text{ Answer.} \end{array}$$

See Example 392.

320. 971 lb. at $5\frac{1}{4}d.$ pp lb.
971 lb.

$$\begin{array}{r} d. \\ 3 - \frac{1}{80} \left| \begin{array}{l} 12 : 2 : 9 \\ \frac{1}{4} - \frac{1}{4} \quad 3 : - : 8\frac{1}{4} \\ 2 - \frac{1}{10} \quad 8 : 1 : 10 \end{array} \right. \\ \hline 5\frac{1}{4} \quad \text{£ } 23 : 5 : 3\frac{1}{4} \text{ Answer.} \end{array}$$

321. 107 lb.

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PRAC.

321. 107 lb. at $6\frac{1}{2}d.$ d^{p} lb.
107 lb.

$$\begin{array}{r} d. \\ 4 \text{ --- } \frac{1}{40} \left| \begin{array}{l} 1 : 15 : 8 \\ \text{---} : 17 : 10 \\ \frac{1}{4} \text{ --- } \frac{1}{8} \text{ ---} : 2 : 2\frac{1}{2} \end{array} \right. \\ 2 \text{ --- } \frac{1}{20} \\ \hline 6\frac{1}{2} \text{ £ } 2 : 15 : 8\frac{1}{2} \text{ Answer.} \end{array}$$

322. 735 lb. at $6\frac{1}{2}d.$ d^{p} lb.
735 lb.

$$\begin{array}{r} d. \\ 6 \text{ --- } \frac{1}{40} \left| \begin{array}{l} 18 : 7 : 6 \\ \frac{1}{2} \text{ --- } \frac{1}{12} \text{ ---} : 1 : 10 : 7\frac{1}{2} \end{array} \right. \\ \hline 6\frac{1}{2} \text{ £ } 19 : 18 : 1\frac{1}{2} \text{ Answer.} \end{array}$$

323. 187 Yards, at $6\frac{1}{2}d.$ d^{p} Yard.
187 Yds.

$$\begin{array}{r} d. \\ 6 \text{ --- } \frac{1}{40} \left| \begin{array}{l} 4 : 13 : 6 \\ \frac{1}{4} \text{ --- } \frac{1}{8} \text{ ---} : \text{---} : 11 : 8\frac{1}{4} \end{array} \right. \\ \hline 6\frac{1}{2} \text{ £ } 5 : 5 : 2\frac{1}{2} \text{ Answer.} \end{array}$$

324. 781 Ells, at $7d.$ d^{p} Ell.
781 Ells.

$$\begin{array}{r} d. \\ 6 \text{ --- } \frac{1}{40} \left| \begin{array}{l} 19 : 10 : 6 \\ 1 \text{ --- } \frac{1}{8} \text{ ---} : 3 : 5 : 1 \end{array} \right. \\ \hline 7 \text{ £ } 22 : 15 : 7 \text{ Answer.} \end{array}$$

325. 107 Ells, at $7\frac{1}{2}d.$ d^{p} Ell.
107 Ells.

$$\begin{array}{r} d. \\ 6 \text{ --- } \frac{1}{40} \left| \begin{array}{l} 2 : 13 : 6 \\ 1 \text{ --- } \frac{1}{8} \text{ ---} : \text{---} : 8 : 11 \\ \frac{1}{4} \text{ --- } \frac{1}{4} \text{ ---} : \text{---} : 2 : 2\frac{1}{2} \end{array} \right. \\ \hline 7\frac{1}{2} \text{ £ } 3 : 4 : 7\frac{1}{2} \text{ Answer.} \end{array}$$

326. 721 C. at $7\frac{1}{2}d.$ d^{p} C.
721 C.

$$\begin{array}{r} d. \\ 6 \text{ --- } \frac{1}{40} \left| \begin{array}{l} 18 : \text{---} : 6 \\ 1\frac{1}{2} \text{ --- } \frac{1}{4} \text{ ---} : 4 : 10 : 1\frac{1}{2} \end{array} \right. \\ \hline 7\frac{1}{2} \text{ £ } 22 : 10 : 7\frac{1}{2} \text{ Answer.} \end{array}$$

See Example 139, and 393.

327. 187 Dozen, at $7\frac{1}{2}d.$ d^{p} Doz.
187 Doz.

$$\begin{array}{r} d. \\ 6 \text{ --- } \frac{1}{40} \left| \begin{array}{l} 4 : 13 : 6 \\ 1\frac{1}{2} \text{ --- } \frac{1}{4} \text{ ---} : 1 : 3 : 4\frac{1}{2} \\ \frac{1}{4} \text{ --- } \frac{1}{8} \text{ ---} : \text{---} : 3 : 10\frac{1}{2} \end{array} \right. \\ \hline 7\frac{1}{2} \text{ £ } 6 : \text{---} : 9\frac{1}{2} \text{ Answer.} \end{array}$$

See Example 524.

328. 687 Grofs, at $8\frac{1}{2}d.$ d^{p} Grofs.
687 Grofs.

$$\begin{array}{r} d. \\ 6 \text{ --- } \frac{1}{40} \left| \begin{array}{l} 17 : 3 : 6 \\ 2 \text{ --- } \frac{1}{20} \text{ ---} : 5 : 14 : 6 \\ \frac{1}{4} \text{ --- } \frac{1}{8} \text{ ---} : \text{---} : 14 : 3\frac{1}{2} \end{array} \right. \\ \hline 8\frac{1}{2} \text{ £ } 23 : 12 : 3\frac{1}{2} \text{ Answer.} \end{array}$$

329. 107 Yards, at $8\frac{1}{2}d.$ d^{p} Yard.
107 Yds.

$$\begin{array}{r} d. \\ 6 \text{ --- } \frac{1}{40} \left| \begin{array}{l} 2 : 13 : 6 \\ 2 \text{ --- } \frac{1}{20} \text{ ---} : \text{---} : 17 : 10 \\ \frac{1}{2} \text{ --- } \frac{1}{4} \text{ ---} : \text{---} : 4 : 5\frac{1}{2} \end{array} \right. \\ \hline 8\frac{1}{2} \text{ £ } 3 : 15 : 9\frac{1}{2} \text{ Answer.} \end{array}$$

330. 701 lb. at $8\frac{1}{2}d.$ d^{p} lb.
701 lb.

$$\begin{array}{r} d. \\ 6 \text{ --- } \frac{1}{40} \left| \begin{array}{l} 17 : 10 : 6 \\ \frac{1}{4} \text{ --- } \frac{1}{10} \text{ ---} : 2 : 3 : 9\frac{1}{2} \\ 2 \text{ --- } \frac{1}{20} \text{ ---} : 5 : 16 : 10 \end{array} \right. \\ \hline 8\frac{1}{2} \text{ £ } 25 : 11 : 1\frac{1}{2} \text{ Answer.} \end{array}$$

331. 1745 Quires,

TICE.

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331. 1745 Quires, at $9\frac{1}{2}d.$ q^{r} Quire.
1745 Quires.

$$\begin{array}{r|l} d. & \\ 6 \text{ --- } \frac{1}{40} & 43 : 12 : 6 \\ 3 \text{ --- } \frac{1}{2} & 21 : 16 : 3 \\ \hline 9 & \text{£ } 65 : 8 : 9 \text{ Answer.} \end{array}$$

See Example 141, 149, 207, & 394.

332. 187 lb. at $9\frac{1}{2}d.$ q^{r} lb.
187 lb.

$$\begin{array}{r|l} d. & \\ 6 \text{ --- } \frac{1}{40} & 4 : 13 : 6 \\ 3 \text{ --- } \frac{1}{2} & 2 : 6 : 9 \\ \frac{1}{4} \text{ --- } \frac{1}{12} & \text{---} : 3 : 10\frac{1}{2} \\ \hline 9\frac{1}{2} & \text{£ } 7 : 4 : 1\frac{1}{2} \text{ Answer.} \end{array}$$

333. 107 oz. at $9\frac{1}{2}d.$ q^{r} oz.
107 oz.

$$\begin{array}{r|l} d. & \\ 6 \text{ --- } \frac{1}{40} & 2 : 13 : 6 \\ 3 \text{ --- } \frac{1}{2} & 1 : 6 : 9 \\ \frac{1}{2} \text{ --- } \frac{1}{8} & \text{---} : 4 : 5\frac{1}{2} \\ \hline 9\frac{1}{2} & \text{£ } 4 : 4 : 8\frac{1}{2} \text{ Answer.} \end{array}$$

334. 709 Ells, at $9\frac{1}{2}d.$ q^{r} Ell.
709 Ells.

$$\begin{array}{r|l} d. & \\ 6 \text{ --- } \frac{1}{40} & 17 : 14 : 6 \\ 3 \text{ --- } \frac{1}{2} & 8 : 17 : 3 \\ \frac{1}{2} \text{ --- } \frac{1}{4} & 2 : 4 : 3\frac{1}{2} \\ \hline 9\frac{1}{2} & \text{£ } 28 : 16 : \text{---} \frac{1}{2} \text{ Answer.} \end{array}$$

335. 9073 Yards, at $10d.$ q^{r} Yard.
9073 Yds.

$$\begin{array}{r|l} d. & \\ 8 \text{ --- } \frac{1}{40} & 302 : 8 : 8 \\ 2 \text{ --- } \frac{1}{2} & 75 : 12 : 2 \\ \hline 10 & \text{£ } 378 : \text{---} : 10 \text{ Answer.} \end{array}$$

See Example 142, 150, 206, & 395.

336. 809 Ells, at $10\frac{1}{2}d.$ q^{r} Ell.
809 Ells.

$$\begin{array}{r|l} d. & \\ 8 \text{ --- } \frac{1}{40} & 26 : 19 : 4 \\ 2 \text{ --- } \frac{1}{2} & 6 : 14 : 10 \\ \frac{1}{4} \text{ --- } \frac{1}{8} & \text{---} : 16 : 10\frac{1}{2} \\ \hline 10\frac{1}{2} & \text{£ } 34 : 11 : \text{---} \frac{1}{2} \text{ Answer.} \end{array}$$

337. 875 Ells, at $10\frac{1}{2}d.$ q^{r} Ell.
875 Ells.

$$\begin{array}{r|l} d. & \\ 6 \text{ --- } \frac{1}{40} & 21 : 17 : 6 \\ 3 \text{ --- } \frac{1}{2} & 10 : 18 : 9 \\ 1\frac{1}{2} \text{ --- } \frac{1}{2} & 5 : 9 : 4\frac{1}{2} \\ \hline 10\frac{1}{2} & \text{£ } 38 : 5 : 7\frac{1}{2} \text{ Answer.} \end{array}$$

See Example 143, 149, and 205.

338. 871 Ells, at $10\frac{1}{2}d.$ q^{r} Ell.
871 Ells.

$$\begin{array}{r|l} d. & \\ 6 \text{ --- } \frac{1}{40} & 21 : 15 : 6 \\ \frac{1}{4} \text{ --- } \frac{1}{8} & 2 : 14 : 5\frac{1}{2} \\ 4 \text{ --- } \frac{1}{20} & 14 : 10 : 4 \\ \hline 10\frac{1}{2} & \text{£ } 39 : \text{---} : 3\frac{1}{2} \text{ Answer.} \end{array}$$

339. 973 Ells, at $11d.$ q^{r} Ell.
973 Ells.

$$\begin{array}{r|l} d. & \\ 8 \text{ --- } \frac{1}{40} & 32 : 8 : 8 \\ 3 \text{ --- } \frac{1}{20} & 12 : 3 : 3 \\ \hline 11 & \text{£ } 44 : 11 : 11 \text{ Answer.} \end{array}$$

See Example 204.

340. 871 oz. at $11\frac{1}{2}d.$ q^{r} oz.
871 oz.

$$\begin{array}{r|l} d. & \\ 8 \text{ --- } \frac{1}{40} & 29 : \text{---} : 8 \\ 3 \text{ --- } \frac{1}{20} & 10 : 17 : 9 \\ \frac{1}{2} \text{ --- } \frac{1}{2} & \text{---} : 18 : 1\frac{1}{2} \\ \hline 11\frac{1}{2} & \text{£ } 40 : 16 : 6\frac{1}{2} \text{ Answer.} \end{array}$$

341. 179 lb.

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341. 179 lb. at $11\frac{1}{2}d.$ q^{r} lb.
179 lb.

$$\begin{array}{r} d. \\ 8 \text{ --- } \frac{1}{30} \left| \begin{array}{l} 5 : 19 : 4 \\ 3 : 4 : 9 \\ \frac{1}{2} : 7 : 5\frac{1}{2} \end{array} \right. \\ 3 \text{ --- } \frac{1}{80} \\ \frac{1}{2} \text{ --- } \frac{1}{8} \end{array}$$

$11\frac{1}{2} \quad \text{£} \quad 8 : 11 : 6\frac{1}{2} \text{ Answer.}$

342. 173 lb. at $11\frac{1}{2}d.$ q^{r} lb.
173 lb.

$$\begin{array}{r} d. \\ 8 \text{ --- } \frac{1}{30} \left| \begin{array}{l} 5 : 15 : 4 \\ 3 : 3 : 3 \\ \frac{1}{4} : 10 : 9\frac{1}{4} \end{array} \right. \\ 3 \text{ --- } \frac{1}{80} \\ \frac{1}{4} \text{ --- } \frac{1}{4} \end{array}$$

$11\frac{1}{2} \quad \text{£} \quad 8 : 9 : 4\frac{1}{2} \text{ Answer.}$

343. 371 Dozen, at $12\frac{1}{2}d.$ q^{r} Doz.
371 Doz.

$$\begin{array}{r} d. \\ 6 \text{ --- } \frac{1}{40} \left| \begin{array}{l} 9 : 5 : 6 \\ 3 : 12 : 9 \\ 3 : 12 : 9 \\ \frac{1}{4} : 7 : 8\frac{1}{4} \end{array} \right. \\ 3 \text{ --- } \frac{1}{40} \\ 3 \text{ --- } \frac{1}{40} \\ \frac{1}{4} : 7 : 8\frac{1}{4} \end{array}$$

$12\frac{1}{2} \quad \text{£} \quad 18 : 18 : 8\frac{1}{2} \text{ Answer.}$

344. 809 Grofs, at $12\frac{1}{2}d.$ q^{r} Grofs.
809 Grofs.

$$\begin{array}{r} d. \\ 6 \text{ --- } \frac{1}{40} \left| \begin{array}{l} 20 : 4 : 6 \\ 6 : 20 : 4 : 6 \\ \frac{1}{3} : 13 : 8\frac{1}{3} \end{array} \right. \\ 6 \text{ --- } \frac{1}{40} \\ \frac{1}{3} : 13 : 8\frac{1}{3} \end{array}$$

$12\frac{1}{2} \quad \text{£} \quad 42 : 2 : 8\frac{1}{2} \text{ Answer.}$

345. 171 Yards, at $12\frac{1}{2}d.$ q^{r} Yard.
171 Yds.

$$\begin{array}{r} d. \\ 6 \text{ --- } \frac{1}{40} \left| \begin{array}{l} 4 : 5 : 6 \\ 6 : 4 : 5 : 6 \\ \frac{1}{2} : 10 : 8\frac{1}{2} \end{array} \right. \\ 6 \text{ --- } \frac{1}{40} \\ \frac{1}{2} : 10 : 8\frac{1}{2} \end{array}$$

$12\frac{1}{2} \quad \text{£} \quad 9 : 1 : 8\frac{1}{2} \text{ Answer.}$

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346. 907 Ells, at $13d.$ q^{r} Ell,
907 Ells.

$$\begin{array}{r} s. \quad d. \\ 1 : \text{ --- } \frac{1}{20} \left| \begin{array}{l} 45 : 7 : \text{ --- } \\ 1 : 15 : 7 \end{array} \right. \\ 1 : \text{ --- } \frac{1}{18} \end{array}$$

$1 : 1 \quad \text{£} \quad 49 : 2 : 7 \text{ Answer.}$

See Example 526.

347. 173 Yards, at $13\frac{1}{2}d.$ q^{r} Yard.
173 Yds.

$$\begin{array}{r} s. \quad d. \\ 1 : \text{ --- } \frac{1}{20} \left| \begin{array}{l} 8 : 13 : \text{ --- } \\ 1 : 14 : 5 \\ \frac{1}{4} : 3 : 7\frac{1}{4} \end{array} \right. \\ 1 : \text{ --- } \frac{1}{18} \\ \frac{1}{4} : 3 : 7\frac{1}{4} \end{array}$$

$1 : 1\frac{1}{4} \quad \text{£} \quad 9 : 11 : \text{ --- } \frac{1}{4} \text{ Answer.}$

348. 871 Ells, at $13\frac{1}{2}d.$ q^{r} EM.
871 Ells.

$$\begin{array}{r} s. \quad d. \\ 1 : \text{ --- } \frac{1}{20} \left| \begin{array}{l} 43 : 11 : \text{ --- } \\ 1\frac{1}{2} : 5 : 10\frac{1}{2} \end{array} \right. \\ 1\frac{1}{2} : 5 : 10\frac{1}{2} \end{array}$$

$1 : 1\frac{1}{2} \quad \text{£} \quad 48 : 19 : 10\frac{1}{2} \text{ Answer.}$

349. 175 lb. at $13\frac{1}{2}d.$ q^{r} lb.
175 lb.

$$\begin{array}{r} s. \quad d. \\ 1 : \text{ --- } \frac{1}{20} \left| \begin{array}{l} 8 : 15 : \text{ --- } \\ 1\frac{1}{2} : 1 : 10\frac{1}{2} \\ \frac{1}{4} : 3 : 7\frac{1}{4} \end{array} \right. \\ 1\frac{1}{2} : 1 : 10\frac{1}{2} \\ \frac{1}{4} : 3 : 7\frac{1}{4} \end{array}$$

$1 : 1\frac{1}{4} \quad \text{£} \quad 10 : \text{ --- } : 6\frac{1}{4} \text{ Answer.}$

350. 137 C. at $14\frac{1}{2}d.$ q^{r} C.
137 C.

$$\begin{array}{r} s. \quad d. \\ 1 : \text{ --- } \frac{1}{20} \left| \begin{array}{l} 6 : 17 : \text{ --- } \\ 2 : 1 : 2 : 10 \\ \frac{1}{4} : 2 : 10\frac{1}{4} \end{array} \right. \\ 2 : 1 : 2 : 10 \\ \frac{1}{4} : 2 : 10\frac{1}{4} \end{array}$$

$1 : 2\frac{1}{4} \quad \text{£} \quad 8 : 2 : 8\frac{1}{4} \text{ Answer.}$

351. 147 Sacks,

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351. 107 Sacks, at $14\frac{1}{4}d.$ $\frac{d}{p}$ Sack.

$$\begin{array}{r}
 \text{s. d.} \\
 1: \text{---} \frac{1}{10} \left| \begin{array}{l} 5 : 7 : \text{---} \\ \text{---} : 17 : 10 \\ \frac{1}{2} \text{---} \frac{1}{4} \text{---} : 4 : 5\frac{1}{2} \end{array} \right. \\
 1: 2\frac{1}{2} \text{ £ } 6 : 9 : 3\frac{1}{2} \text{ Anfw.}
 \end{array}$$

352. 713 Bushels, at $14\frac{1}{4}d.$ $\frac{d}{p}$ Bushel.

$$\begin{array}{r}
 \text{d.} \\
 8 \text{---} \frac{1}{10} \left| \begin{array}{l} 23 : 15 : 4 \\ 6 \text{---} \frac{1}{10} \left| \begin{array}{l} 17 : 10 : 6 \\ \frac{1}{2} \text{---} \frac{1}{4} \text{---} : 2 : 4 : 6\frac{1}{2} \end{array} \right. \end{array} \right. \\
 14\frac{1}{4} \text{ £ } 43 : 16 : 4\frac{1}{4} \text{ Answer.}
 \end{array}$$

353. 9081 Ells, at $15\frac{1}{4}d.$ $\frac{d}{p}$ Ell.

$$\begin{array}{r}
 \text{s. d.} \\
 1: \text{---} \frac{1}{10} \left| \begin{array}{l} 454 : 1 : \text{---} \\ 3 \text{---} \frac{1}{4} \left| \begin{array}{l} 113 : 10 : 3 \\ \frac{1}{2} \text{---} \frac{1}{8} \left| \begin{array}{l} 9 : 9 : 2\frac{1}{2} \end{array} \right. \end{array} \right. \end{array} \right. \\
 1: 3\frac{1}{4} \text{ £ } 577 : \text{---} : 5\frac{1}{4} \text{ Anf.}
 \end{array}$$

354. 921 Dozen, at $15\frac{1}{4}d.$ per Doz.

$$\begin{array}{r}
 \text{s. d.} \\
 1: \text{---} \frac{1}{10} \left| \begin{array}{l} 46 : 1 : \text{---} \\ 3 \text{---} \frac{1}{4} \left| \begin{array}{l} 11 : 10 : 3 \\ \frac{1}{2} \text{---} \frac{1}{8} \left| \begin{array}{l} 1 : 18 : 4\frac{1}{2} \end{array} \right. \end{array} \right. \end{array} \right. \\
 1: 3\frac{1}{2} \text{ £ } 59 : 9 : 7\frac{1}{2} \text{ Anfw.}
 \end{array}$$

355. 173 oz. at $15\frac{1}{4}d.$ per oz.

$$\begin{array}{r}
 \text{s. d.} \\
 1: \text{---} \frac{1}{10} \left| \begin{array}{l} 8 : 13 : \text{---} \\ 3 \text{---} \frac{1}{4} \left| \begin{array}{l} 2 : 3 : 3 \\ \frac{1}{2} \text{---} \frac{1}{4} \left| \begin{array}{l} \text{---} : 10 : 9\frac{1}{2} \end{array} \right. \end{array} \right. \end{array} \right. \\
 1: 3\frac{1}{4} \text{ £ } 11 : 7 : \text{---} \frac{1}{2} \text{ Anfw.}
 \end{array}$$

356. 957 Yards, at $16\frac{1}{4}d.$ $\frac{d}{p}$ Yard.

$$\begin{array}{r}
 \text{s. d.} \\
 1: \text{---} \frac{1}{10} \left| \begin{array}{l} 47 : 17 : \text{---} \\ 3 \text{---} \frac{1}{4} \left| \begin{array}{l} 11 : 19 : 3 \\ 1 \text{---} \frac{1}{4} \left| \begin{array}{l} 3 : 19 : 9 \\ \frac{1}{2} \text{---} \frac{1}{4} \left| \begin{array}{l} \text{---} : 19 : 11\frac{1}{2} \end{array} \right. \end{array} \right. \end{array} \right. \end{array} \right. \\
 1: 4\frac{1}{4} \text{ £ } 64 : 15 : 11\frac{1}{2} \text{ Anfw.}
 \end{array}$$

357. 179 Yards, at $16\frac{1}{4}d.$ $\frac{d}{p}$ Yard.

$$\begin{array}{r}
 \text{s. d.} \\
 1: \text{---} \frac{1}{10} \left| \begin{array}{l} 8 : 19 : \text{---} \\ 4 \text{---} \frac{1}{4} \left| \begin{array}{l} 2 : 19 : 8 \\ \frac{1}{2} \text{---} \frac{1}{8} \left| \begin{array}{l} \text{---} : 7 : 5\frac{1}{2} \end{array} \right. \end{array} \right. \end{array} \right. \\
 1: 4\frac{1}{2} \text{ £ } 12 : 6 : 1\frac{1}{2} \text{ Anfw.}
 \end{array}$$

358. 875 Ells, at $16\frac{1}{4}d.$ $\frac{d}{p}$ Ell.

$$\begin{array}{r}
 \text{s. d.} \\
 1: \text{---} \frac{1}{10} \left| \begin{array}{l} 43 : 15 : \text{---} \\ 3 \text{---} \frac{1}{4} \left| \begin{array}{l} 10 : 18 : 9 \\ 1\frac{1}{2} \text{---} \frac{1}{8} \left| \begin{array}{l} 5 : 9 : 4\frac{1}{2} \\ \frac{1}{2} \text{---} \frac{1}{8} \left| \begin{array}{l} \text{---} : 18 : 2\frac{1}{2} \end{array} \right. \end{array} \right. \end{array} \right. \end{array} \right. \\
 1: 4\frac{1}{4} \text{ £ } 61 : 1 : 4\frac{1}{4} \text{ Anfw.}
 \end{array}$$

359. 173 lb. at $17d.$ $\frac{d}{p}$ lb.

$$\begin{array}{r}
 \text{s. d.} \\
 1: \text{---} \frac{1}{10} \left| \begin{array}{l} 8 : 13 : \text{---} \\ 4 \text{---} \frac{1}{4} \left| \begin{array}{l} 2 : 17 : 8 \\ 1 \text{---} \frac{1}{4} \left| \begin{array}{l} \text{---} : 14 : 5 \end{array} \right. \end{array} \right. \end{array} \right. \\
 1: 5 \text{ £ } 12 : 5 : 1 \text{ Answer.}
 \end{array}$$

360. 879 Yards, at $17\frac{1}{4}d.$ $\frac{d}{p}$ Yard.

$$\begin{array}{r}
 \text{s. d.} \\
 1: \text{---} \frac{1}{10} \left| \begin{array}{l} 43 : 19 : \text{---} \\ 4 \text{---} \frac{1}{4} \left| \begin{array}{l} 14 : 13 : \text{---} \\ 1 \text{---} \frac{1}{4} \left| \begin{array}{l} 3 : 13 : 3 \\ \frac{1}{2} \text{---} \frac{1}{4} \left| \begin{array}{l} \text{---} : 18 : 3\frac{1}{2} \end{array} \right. \end{array} \right. \end{array} \right. \end{array} \right. \\
 1: 5\frac{1}{4} \text{ £ } 63 : 3 : 6\frac{1}{4} \text{ Anfw.}
 \end{array}$$

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361. 197 Ells, at $17\frac{1}{2}d.$ d^p Ell.
197 Ells.

s.	d.	
1	—	$\frac{1}{20}$
4	—	$\frac{1}{5}$
$1\frac{1}{2}$	—	$\frac{1}{3}$
		9 : 17 : —
		3 : 5 : 8
		1 : 4 : $7\frac{1}{2}$

1 : $5\frac{1}{2}$ £ 14 : 7 : $3\frac{1}{2}$ Answer.

362. 871 oz. at $17\frac{1}{2}d.$ d^p oz.
871 oz.

s.	d.	
1	—	$\frac{1}{20}$
4	—	$\frac{1}{5}$
$1\frac{1}{2}$	—	$\frac{1}{3}$
$\frac{1}{4}$	—	$\frac{1}{6}$
		43 : 11 : —
		14 : 10 : 4
		5 : 8 : $10\frac{1}{2}$
		— : 18 : $1\frac{1}{2}$

1 : $5\frac{1}{2}$ £ 64 : 8 : $4\frac{1}{2}$ Answer.

363. 171 Yards, at $18\frac{1}{2}d.$ d^p Yard.
171 Yds.

s.	d.	
1	—	$\frac{1}{20}$
4	—	$\frac{1}{5}$
2	—	$\frac{1}{10}$
$\frac{1}{4}$	—	$\frac{1}{8}$
		8 : 11 : —
		2 : 17 : —
		1 : 8 : 6
		— : 3 : $6\frac{1}{2}$

1 : $6\frac{1}{2}$ £ 13 : — : $—\frac{1}{2}$ Answer.

364. 837 Grofs, at $18\frac{1}{2}d.$ d^p Grofs.
837 Grofs.

s.	d.	
1	—	$\frac{1}{20}$
6	—	$\frac{1}{10}$
$\frac{1}{2}$	—	$\frac{1}{13}$
		41 : 17 : —
		20 : 18 : 6
		1 : 14 : $10\frac{1}{2}$

1 : $6\frac{1}{2}$ £ 64 : 10 : $4\frac{1}{2}$ Answer.

365. 137 Dozen, at $18\frac{1}{2}d.$ d^p Doz.
137 Doz.

s.	d.	
1	—	$\frac{1}{20}$
6	—	$\frac{1}{10}$
$\frac{1}{4}$	—	$\frac{1}{8}$
		6 : 17 : —
		3 : 8 : 6
		— : 8 : $6\frac{1}{2}$

1 : $6\frac{1}{2}$ £ 10 : 14 : $—\frac{1}{2}$ Answer.

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366. 739 lb. at $19d.$ d^p lb.

s.	d.	
1	—	$\frac{1}{20}$
6	—	$\frac{1}{10}$
1	—	$\frac{1}{8}$
		36 : 19 : —
		18 : 9 : 6
		3 : 1 : 7

1 : 7 £ 58 : 10 : 1 Answer.

See Example 399.

367. 875 Ells, at $19\frac{1}{2}d.$ d^p Ell.
875 Ells.

s.	d.	
1	—	$\frac{1}{20}$
6	—	$\frac{1}{10}$
1	—	$\frac{1}{8}$
$\frac{1}{4}$	—	$\frac{1}{4}$
		43 : 15 : —
		21 : 17 : 6
		3 : 12 : 11
		— : 18 : $2\frac{1}{2}$

1 : $7\frac{1}{2}$ £ 70 : 3 : $7\frac{1}{2}$ Answer.

368. 327 Ells, at $19\frac{1}{2}d.$ d^p Ell.
327 Ells.

s.	d.	
1	—	$\frac{1}{20}$
6	—	$\frac{1}{10}$
$1\frac{1}{2}$	—	$\frac{1}{4}$
		16 : 7 : —
		8 : 3 : 6
		2 : — : $10\frac{1}{2}$

1 : $7\frac{1}{2}$ £ 26 : 11 : $4\frac{1}{2}$ Answer.

369. 173 lb. at $19\frac{1}{2}d.$ d^p lb.

s.	d.	
1	—	$\frac{1}{20}$
6	—	$\frac{1}{10}$
$1\frac{1}{2}$	—	$\frac{1}{4}$
$\frac{1}{4}$	—	$\frac{1}{8}$
		8 : 13 : —
		4 : 6 : 6
		1 : 1 : $7\frac{1}{2}$
		— : 3 : $7\frac{1}{2}$

1 : $7\frac{1}{2}$ £ 14 : 4 : $8\frac{1}{2}$ Answer.

370. 375 Ells, at $20\frac{1}{2}d.$ d^p Ell.
375 Ells.

s.	d.	
1	—	$\frac{1}{20}$
6	—	$\frac{1}{10}$
2	—	$\frac{1}{10}$
$\frac{1}{4}$	—	$\frac{1}{8}$
		18 : 15 : —
		9 : 7 : 6
		3 : 2 : 6
		— : 7 : $9\frac{1}{2}$

1 : $8\frac{1}{2}$ £ 31 : 12 : $9\frac{1}{2}$ Answer.

371. 217 Yards,

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371. 217 Yards, at $20\frac{1}{2}d.$ q^{d} Yard.
217 Yds.

$$\begin{array}{r}
 s. \quad d. \\
 1: \text{---} \frac{1}{10} \left| \begin{array}{l} 10 : 17 : \text{---} \\ 6 : 5 : 8 : 6 \\ 2 : 1 : 16 : 2 \\ \frac{1}{2} : \text{---} : 9 : \text{---} \frac{1}{2} \end{array} \right. \\
 \hline
 1: 8\frac{1}{2} \quad \text{£} 18 : 10 : 8\frac{1}{2} \text{ Anfw.}
 \end{array}$$

372. 721 C. at $20\frac{1}{2}d.$ q^{d} C.

$$\begin{array}{r}
 s. \quad d. \\
 1: \text{---} \frac{1}{10} \left| \begin{array}{l} 36 : 1 : \text{---} \\ 6 : 18 : \text{---} : 6 \\ 2 : 6 : \text{---} : 2 \\ \frac{1}{2} : 2 : 5 : \text{---} \frac{1}{2} \end{array} \right. \\
 \hline
 1: 8\frac{1}{2} \quad \text{£} 62 : 6 : 8\frac{1}{2} \text{ Anfw.}
 \end{array}$$

373. 173 Ells, at $21d.$ q^{d} Ell.
173 Ells.

$$\begin{array}{r}
 s. \quad d. \\
 1: \text{---} \frac{1}{10} \left| \begin{array}{l} 8 : 13 : \text{---} \\ 6 : 4 : 6 : 6 \\ 3 : 2 : 3 : 3 \end{array} \right. \\
 \hline
 1: 9 \quad \text{£} 15 : 2 : 9 \text{ Answer.}
 \end{array}$$

See Example 155, and 400.

374. 317 lb. at $21\frac{1}{2}d.$ q^{d} lb.

$$\begin{array}{r}
 s. \quad d. \\
 1: \text{---} \frac{1}{10} \left| \begin{array}{l} 15 : 17 : \text{---} \\ 6 : 7 : 18 : 6 \\ 3 : 3 : 19 : 3 \\ \frac{1}{2} : \text{---} : 6 : 7\frac{1}{2} \end{array} \right. \\
 \hline
 1: 9\frac{1}{2} \quad \text{£} 28 : 1 : 4\frac{1}{2} \text{ Anfw.}
 \end{array}$$

375. 173 oz. at $21\frac{1}{2}d.$ q^{d} oz.

$$\begin{array}{r}
 s. \quad d. \\
 1: \text{---} \frac{1}{10} \left| \begin{array}{l} 8 : 13 : \text{---} \\ 6 : 4 : 6 : 6 \\ 3 : 2 : 3 : 3 \\ \frac{1}{2} : \text{---} : 7 : 2\frac{1}{2} \end{array} \right. \\
 \hline
 1: 9\frac{1}{2} \quad \text{£} 15 : 9 : 11\frac{1}{2} \text{ Anfw.}
 \end{array}$$

376. 307 Yards, at $21\frac{1}{2}d.$ q^{d} Yard.
307 Yds.

$$\begin{array}{r}
 s. \quad d. \\
 1: \text{---} \frac{1}{10} \left| \begin{array}{l} 15 : 7 : \text{---} \\ 6 : 7 : 13 : 6 \\ 3 : 3 : 16 : 9 \\ \frac{1}{2} : \text{---} : 19 : 2\frac{1}{2} \end{array} \right. \\
 \hline
 1: 9\frac{1}{2} \quad \text{£} 27 : 16 : 5\frac{1}{2} \text{ Anfw.}
 \end{array}$$

377. 107 lb. at $22\frac{1}{2}d.$ q^{d} lb.
107 lb.

$$\begin{array}{r}
 s. \quad d. \\
 1: 8 \text{---} \frac{1}{10} \left| \begin{array}{l} 8 : 18 : 4 \\ 2 : \text{---} : 17 : 10 \\ \frac{1}{2} : \text{---} : 2 : 2\frac{1}{2} \end{array} \right. \\
 \hline
 1: 10\frac{1}{2} \quad \text{£} 9 : 18 : 4\frac{1}{2} \text{ Anfw.}
 \end{array}$$

378. 791 Yards, at $22\frac{1}{2}d.$ q^{d} Yard.
791 Yds.

$$\begin{array}{r}
 s. \quad d. \\
 1: 8 \text{---} \frac{1}{10} \left| \begin{array}{l} 65 : 18 : 4 \\ 2\frac{1}{2} \text{---} \frac{1}{10} : 8 : 4 : 9\frac{1}{2} \end{array} \right. \\
 \hline
 1: 10\frac{1}{2} \quad \text{£} 74 : 3 : 1\frac{1}{2} \text{ Anfw.}
 \end{array}$$

379. 199 Ells, at $22\frac{1}{2}d.$ q^{d} Ell.
199 Ells.

$$\begin{array}{r}
 s. \quad d. \\
 1: 8 \text{---} \frac{1}{10} \left| \begin{array}{l} 16 : 11 : 8 \\ 2\frac{1}{2} \text{---} \frac{1}{10} : 2 : 1 : 5\frac{1}{2} \\ \frac{1}{2} \text{---} \frac{1}{10} : \text{---} : 4 : 1\frac{1}{2} \end{array} \right. \\
 \hline
 1: 10\frac{1}{2} \quad \text{£} 18 : 17 : 3\frac{1}{2} \text{ Anfw.}
 \end{array}$$

380. 147 Pair, at $23\frac{1}{2}d.$ q^{d} Pair.
147 Pair.

$$\begin{array}{r}
 s. \quad d. \\
 1: 8 \text{---} \frac{1}{10} \left| \begin{array}{l} 12 : 5 : \text{---} \\ 3 \text{---} \frac{1}{10} : 1 : 16 : 9 \\ \frac{1}{2} \text{---} \frac{1}{10} : \text{---} : 3 : \text{---} \frac{1}{2} \end{array} \right. \\
 \hline
 1: 11\frac{1}{2} \quad \text{£} 14 : 4 : 9\frac{1}{2} \text{ Anfw.}
 \end{array}$$

381. 737 Skins,

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381. 737 Skins, at $23\frac{1}{2}d.$ each.

737 Skins.

$$\begin{array}{r} s. \quad d. \\ 1: 8--\frac{1}{2} \left| \begin{array}{l} 61 : 5 : - \\ 3--\frac{1}{10} \quad 9 : 4 : 3 \\ \frac{1}{2}--\frac{1}{2} \quad 1 : 10 : 8\frac{1}{2} \end{array} \right. \\ \hline 1: 11\frac{1}{2} \quad \pounds 71 : 19 : 11\frac{1}{2} \text{ Answer.} \end{array}$$

382. 175 Caps, at $23\frac{1}{2}d.$ each.

175 Caps.

$$\begin{array}{r} s. \quad d. \\ 1: 8--\frac{1}{2} \left| \begin{array}{l} 14 : 11 : 8 \\ 3--\frac{1}{10} \quad 2 : 3 : 9 \\ \frac{1}{2}--\frac{1}{2} \quad - : 10 : 11\frac{1}{2} \end{array} \right. \\ \hline 1: 11\frac{1}{2} \quad \pounds 17 : 6 : 4\frac{1}{2} \text{ Answer.} \end{array}$$

See Example 527.

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383. 2731 lb., at $\frac{1}{2}d.$ d^{p} lb.

$$\begin{array}{r} d. \quad 2731 \text{ lb.} \\ 3--\frac{1}{10} \left| \begin{array}{l} 34 : 2 : 9 \\ \frac{1}{2}--\frac{1}{2} \quad \pounds 2 : 10 : 10\frac{1}{2} \text{ Answer.} \end{array} \right. \end{array}$$

See Example 302.

387. 371 Yards, at $2\frac{1}{2}d.$ d^{p} Yard.

$$\begin{array}{r} s. \quad d. \quad 371 \text{ Yds.} \\ 1: 8--\frac{1}{2} \left| \begin{array}{l} 30 : 18 : 4 \\ 2\frac{1}{2}--\frac{1}{2} \quad \pounds 3 : 17 : 3\frac{1}{2} \text{ Answer.} \end{array} \right. \end{array}$$

See Example 309.

384. 871 oz., at $\frac{1}{2}d.$ d^{p} oz.

$$\begin{array}{r} d. \quad 871 \text{ oz.} \\ 3--\frac{1}{10} \left| \begin{array}{l} 10 : 17 : 9 \\ \frac{1}{2}--\frac{1}{2} \quad \pounds 1 : 16 : 3\frac{1}{2} \text{ Answer.} \end{array} \right. \end{array}$$

See Example 303.

388. 871 Feet, at $2\frac{1}{2}d.$ d^{p} Foot.

$$\begin{array}{r} d. \\ 3--\frac{1}{10} \left| \begin{array}{l} 10 : 17 : 6 \\ \frac{1}{2}--\frac{1}{2} \quad - : 18 : 1\frac{1}{2} \end{array} \right\} \text{Subtract.} \\ \hline 2\frac{1}{2} \quad \pounds 9 : 19 : 7\frac{1}{2} \text{ Answer.} \end{array}$$

See Example 310.

385. 705 Ells, at $\frac{1}{2}d.$ d^{p} Ell.

$$\begin{array}{r} d. \quad 705 \text{ Ells.} \\ 3--\frac{1}{10} \left| \begin{array}{l} 8 : 16 : 3 \\ \frac{1}{2}--\frac{1}{2} \quad \pounds 2 : 4 : -\frac{1}{2} \text{ Answer.} \end{array} \right. \end{array}$$

See Example 304, and 305.

389. 8713 Yards, at $3\frac{1}{2}d.$ d^{p} Yard.

$$\begin{array}{r} s. \quad d. \quad 8713 \text{ Yds.} \\ 2: 6--\frac{1}{2} \left| \begin{array}{l} 1089 : 21 : 6 \\ 3\frac{1}{2}--\frac{1}{2} \quad \pounds 136 : 2 : 9\frac{1}{2} \text{ Answer.} \end{array} \right. \end{array}$$

See Example 313.

386. 8731 Yards, at $1\frac{1}{2}d.$ d^{p} Yard.

$$\begin{array}{r} s. \quad d. \quad 8731 \text{ Yds.} \\ 1: 8--\frac{1}{2} \left| \begin{array}{l} 727 : 111 : 8 \\ 5--\frac{1}{2} \quad 181 : 117 : 11 \\ 1\frac{1}{2}--\frac{1}{2} \quad \pounds 45 : 9 : 5\frac{1}{2} \text{ Ans.} \end{array} \right. \end{array}$$

See Example 306.

390. 731 Ells, at $5d.$ d^{p} Ell.

$$\begin{array}{r} s. \quad d. \quad 731 \text{ Ells.} \\ 1: 8--\frac{1}{2} \left| \begin{array}{l} 60 : 118 : 4 \\ 5--\frac{1}{2} \quad \pounds 15 : 4 : 7 \text{ Answer.} \end{array} \right. \end{array}$$

See Example 317.

391. 879 Yards,

TICE.

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391. 879 Yards, at $5\frac{1}{2}d.$ $\frac{1}{4}p$ Yard.

$$\begin{array}{r} 879 \text{ Yds.} \\ s. \quad d. \\ 6 \text{ -- } \frac{1}{40} \left| \begin{array}{l} 21 : 19 : 6 \\ 2 : 14 : 11\frac{1}{2} \end{array} \right\} \text{Subtract.} \\ 1 \text{ -- } \frac{1}{8} \\ \hline 5\frac{1}{2} \quad \pounds 19 : 4 : 6\frac{1}{2} \text{ Answer.} \end{array}$$

See Example 318, and 523.

392. 713 Ells, at $5\frac{1}{2}d.$ $\frac{1}{4}p$ Ell.

$$\begin{array}{r} 713 \text{ Yds.} \\ s. \quad d. \\ 6 \text{ -- } \frac{1}{40} \left| \begin{array}{l} 17 : 16 : 6 \\ 1 : 9 : 8\frac{1}{2} \end{array} \right\} \\ 1 \text{ -- } \frac{1}{8} \\ \hline 5\frac{1}{2} \quad \pounds 16 : 6 : 9\frac{1}{2} \text{ Answer.} \end{array}$$

See Example 319.

393. 721 C. at $7\frac{1}{2}d.$ $\frac{1}{4}p$ C.

$$\begin{array}{r} 721 \text{ C.} \\ s. \quad d. \\ 2 : 6 \text{ -- } \frac{1}{8} \left| \begin{array}{l} 90 : 2 : 6 \\ 22 : 10 : 7\frac{1}{2} \end{array} \right\} \\ 7\frac{1}{2} \text{ -- } \frac{1}{4} \pounds 22 : 10 : 7\frac{1}{2} \text{ Answer.} \end{array}$$

See Example 326.

394. 1745 Quires, at $9d.$ $\frac{1}{4}p$ Quire.

$$\begin{array}{r} 1745 \text{ Quires.} \\ s. \quad d. \\ 6 \text{ -- } \frac{1}{16} \left| \begin{array}{l} 523 : 110 \\ 05 : 8 : 9 \end{array} \right\} \\ 9 \text{ -- } \frac{1}{8} \pounds 05 : 8 : 9 \text{ Answer.} \end{array}$$

See Example 141, 149, 207, & 331.

395. 9073 Yards, at $10d.$ $\frac{1}{4}p$ Yard.

$$\begin{array}{r} 9073 \text{ Yds.} \\ s. \quad d. \\ 1 : 8 \text{ -- } \frac{1}{12} \left| \begin{array}{l} 7361 : 118 \\ 6378 : \text{---} : 10 \end{array} \right\} \\ 10 \text{ -- } \frac{1}{2} \pounds 378 : \text{---} : 10 \text{ Answer.} \end{array}$$

See Example 142, 206, and 335.

396. 713 lb. at $14d.$ $\frac{1}{4}p$ lb.

$$\begin{array}{r} 713 \text{ lb.} \\ s. \quad d. \\ 14 \text{ -- } \frac{1}{10} \left| \begin{array}{l} 499 : 2 \\ 41 : 11 : 10 \end{array} \right\} \\ 1 : 2 \text{ -- } \frac{1}{10} \pounds 41 : 11 : 10 \text{ Answer.} \end{array}$$

See Example 219, and 396.

397. 873 Yards, at $15d.$ $\frac{1}{4}p$ Yard.

$$\begin{array}{r} 873 \text{ Yds.} \\ s. \quad d. \\ 5 \text{ -- } \frac{1}{4} \left| \begin{array}{l} 218 : 5 \\ 54 : 11 : 3 \end{array} \right\} \\ 1 : 3 \text{ -- } \frac{1}{4} \pounds 54 : 11 : 3 \text{ Answer.} \end{array}$$

See Example 152, and 220.

398. 913 C. at $16d.$ $\frac{1}{4}p$ C.

$$\begin{array}{r} 913 \text{ C.} \\ s. \quad d. \\ 16 \text{ -- } \frac{1}{10} \left| \begin{array}{l} 730 : 3 \\ 60 : 17 : 4 \end{array} \right\} \\ 1 : 4 \text{ -- } \frac{1}{10} \pounds 60 : 17 : 4 \text{ Answer.} \end{array}$$

See Example 153, and 221.

399. 739 Ells, at $11. 7d.$ $\frac{1}{4}p$ Ell.

$$\begin{array}{r} 739 \text{ Ells.} \\ s. \quad d. \\ 1 : 8 \text{ -- } \frac{1}{12} \left| \begin{array}{l} 61 : 11 : 8 \\ 3 : 1 : 7 \end{array} \right\} \text{Subtract.} \\ 1 \text{ -- } \frac{1}{10} \\ \hline 1 : 7 \quad \pounds 58 : 10 : 1 \text{ Answer.} \end{array}$$

See Example 366.

400. 173 Ells, at $11. 9d.$ $\frac{1}{4}p$ Ell.

$$\begin{array}{r} 173 \text{ Ells.} \\ s. \quad d. \\ 1 : 8 \text{ -- } \frac{1}{12} \left| \begin{array}{l} 14 : 8 : 4 \\ \text{---} : 14 : 5 \end{array} \right\} \\ 1 \text{ -- } \frac{1}{10} \\ \hline 1 : 9 \quad \pounds 15 : 2 : 9 \text{ Answer.} \end{array}$$

See Example 155, and 373.

Examples

*Examples for the Learner's Exercise.**Answer.*

At $2\frac{1}{2}d.$ per lb. what cost 721 lb.?	—	£ 6 : 15 : $2\frac{1}{2}$
What cost 173 Yards, at $2\frac{1}{2}d.$ per Yard?	—	1 : 16 : $-\frac{1}{2}$
If 1 Foot cost $2\frac{1}{2}d.$ what cost 171 Feet?	—	1 : 19 : $2\frac{1}{2}$
At $3\frac{1}{2}d.$ per Quart, what cost 807 Quarts?	—	10 : 18 : $6\frac{1}{2}$
At $3\frac{1}{2}d.$ per Peck, what cost 175 Pecks?	—	2 : 11 : $-\frac{1}{2}$
What cost 807 Yards, at $3\frac{1}{2}d.$ per Yard?	—	12 : 12 : $2\frac{1}{2}$
At $4\frac{1}{2}d.$ per Ell, what cost 875 Ells?	—	15 : 9 : $10\frac{1}{2}$
What is the Price of 127 lb. at $4\frac{1}{2}d.$ per lb.?	—	2 : 7 : $7\frac{1}{2}$
What cost 173 C. at $4\frac{1}{2}d.$ per C.?	—	3 : 8 : $5\frac{1}{2}$
What cost 731 Ells, at $5d.$ per Ell?	—	15 : 4 : 7
At $5\frac{1}{2}d.$ per Yard, what cost 813 Yards?	—	17 : 15 : $8\frac{1}{2}$
At $5\frac{1}{2}d.$ per C. what cost 179 C.?	—	4 : 5 : $9\frac{1}{2}$
At $6\frac{1}{2}d.$ per Dozen, what cost 827 Dozen?	—	21 : 10 : $8\frac{1}{2}$
What is the Price of 782 Yards, at $6\frac{1}{2}d.$ per Yard?	—	21 : 3 : 7
At $6\frac{1}{2}d.$ per Ell, what cost 117 Ells?	—	3 : 5 : $9\frac{1}{2}$
At $7d.$ per lb. what cost 725 lb.?	—	21 : 2 : 11
At $7\frac{1}{2}d.$ per C. what cost 527 C.?	—	15 : 18 : $4\frac{1}{2}$
If 1 Yard cost $7\frac{1}{2}d.$ what cost 725 Yards?	—	22 : 13 : $1\frac{1}{2}$
At $7\frac{1}{2}d.$ per lb. what cost 147 lb.?	—	4 : 14 : $11\frac{1}{2}$
What cost 879 Pecks, at $8\frac{1}{2}d.$ per Peck?	—	30 : 4 : $3\frac{1}{2}$
What cost 713 lb. at $8\frac{1}{2}d.$ per lb.?	—	25 : 5 : $-\frac{1}{2}$
If 1 Yard cost $8\frac{1}{2}d.$ what cost 873 Yards?	—	31 : 16 : $6\frac{1}{2}$
At $9d.$ per Ell, what cost 173 Ells?	—	6 : 9 : 9
What cost 730 Feet, at $9\frac{1}{2}d.$ per Foot?	—	28 : 2 : $8\frac{1}{2}$
At $9\frac{1}{2}d.$ per lb. what cost 107 lb.?	—	4 : 4 : $8\frac{1}{2}$
What cost 701 Yards, at $9\frac{1}{2}d.$ per Yard?	—	28 : 9 : $6\frac{1}{2}$
At $10d.$ per Ell, what cost 735 Ells?	—	30 : 12 : 6
At $10\frac{1}{2}d.$ per lb. what cost 109 lb.?	—	4 : 13 : $1\frac{1}{2}$
What is the Price of 791 lb. at $10\frac{1}{2}d.$ per lb.?	—	34 : 12 : $1\frac{1}{2}$
What cost 871 lb. at $10\frac{1}{2}d.$ per lb.?	—	39 : — : $3\frac{1}{2}$
At $11d.$ per C. what cost 173 C.?	—	7 : 18 : 7
What cost 1731 Yards, at $11\frac{1}{2}d.$ per Yard?	—	81 : 2 : $9\frac{1}{2}$
At $11\frac{1}{2}d.$ per Ell, what cost 713 Ells?	—	34 : 3 : $3\frac{1}{2}$
What is the Price of 685 Yards, at $11\frac{1}{2}d.$ per Yard?	—	33 : 10 : $8\frac{1}{2}$
At $12\frac{1}{2}d.$ per C. what cost 973 C.?	—	49 : 13 : $3\frac{1}{2}$
At $12\frac{1}{2}d.$ per Foot, what cost 879 Feet?	—	45 : 15 : $7\frac{1}{2}$
What cost 987 Ounces, at $12\frac{1}{2}d.$ per Ounce?	—	52 : 8 : $8\frac{1}{2}$
What is the Price of 707 Ells, at $13d.$ per Ell?	—	38 : 5 : 11
At $13\frac{1}{2}d.$ per Dozen, what cost 113 Dozen?	—	6 : 4 : $9\frac{1}{2}$
At $13\frac{1}{2}d.$ per Bushel, what cost 811 Bushels?	—	45 : 12 : $4\frac{1}{2}$

At

Answer.

At $13\frac{1}{2}d.$ per lb. what cost 371 lb.?	£ 21 : 5 : $1\frac{1}{2}$
At $14d.$ per C. what cost 827 C.?	48 : 4 : 10
At $14\frac{1}{2}d.$ per Bushel, what cost 837 Bushels?	49 : 13 : $11\frac{1}{2}$
What cost 179 Yards, at $14\frac{1}{2}d.$ per Yard?	10 : 16 : $3\frac{1}{2}$
At $14\frac{1}{2}d.$ per Ell, what cost 827 Ells?	50 : 16 : $6\frac{1}{2}$
At $15d.$ per C. what cost 731 C.?	45 : 13 : 9
At $15\frac{1}{2}d.$ per Yard, what cost 837 Yards?	53 : 3 : $8\frac{1}{2}$
At $15\frac{1}{2}d.$ per lb. what cost 173 lb.?	11 : 3 : $5\frac{1}{2}$
At $15\frac{1}{2}d.$ per C. what cost 271 C.?	17 : 15 : $8\frac{1}{2}$
What cost 837 lb. at $16d.$ per lb.?	55 : 16 : —
At $16\frac{1}{2}d.$ per Yard, what cost 617 Yards?	41 : 15 : $6\frac{1}{2}$
At $16\frac{1}{2}d.$ per Ell, what cost 179 Ells?	12 : 6 : $1\frac{1}{2}$
What cost 837 Yards, at $16\frac{1}{2}d.$ per Yard?	58 : 8 : $3\frac{1}{2}$
At $17d.$ per Bushel, what cost 171 Bushels?	12 : 2 : 3
What cost 717 lb. at $17\frac{1}{2}d.$ per lb.?	51 : 10 : $8\frac{1}{2}$
At $17\frac{1}{2}d.$ per C. what cost 999 C.?	72 : 16 : $10\frac{1}{2}$
What cost 917 Yards, at $17\frac{1}{2}d.$ per Yard?	67 : 16 : $4\frac{1}{2}$
What cost 873 lb. at $18d.$ per lb.?	65 : 9 : 6
What cost 139 Sacks, at $18\frac{1}{2}d.$ per Sack?	10 : 11 : $4\frac{1}{2}$
What cost 179 C. at $18\frac{1}{2}d.$ per C.	13 : 15 : $11\frac{1}{2}$
At $18\frac{1}{2}d.$ per Yard, what cost 837 Yards?	65 : 7 : $9\frac{1}{2}$
What cost 179 lb. at $19d.$ per lb.?	14 : 3 : 5
At $19\frac{1}{2}d.$ per Ell, what cost 979 Ells?	78 : 10 : $5\frac{1}{2}$
At $19\frac{1}{2}d.$ per Ell, what cost 179 Ells?	14 : 10 : $10\frac{1}{2}$
At $19\frac{1}{2}d.$ per Bushel, what cost 917 Bushel?	75 : 9 : $2\frac{1}{2}$
At $20\frac{1}{2}d.$ per Dozen, what cost 971 Dozen?	81 : 18 : $6\frac{1}{2}$
At $20\frac{1}{2}d.$ per Pair, what cost 171 Pair?	14 : 12 : $1\frac{1}{2}$
What cost 827 Gros, at $20\frac{1}{2}d.$ per Gros?	71 : 10 : —
At $21d.$ per Bushel, what cost 837 Bushels?	73 : 4 : 9
What cost 107 Pair, at $21\frac{1}{2}d.$ per Pair?	9 : 9 : $5\frac{1}{2}$
At $21\frac{1}{2}d.$ per Dozen, what cost 821 Dozen?	73 : 10 : $11\frac{1}{2}$
What cost 173 Ounces, at $21\frac{1}{2}d.$ per Ounce?	15 : 9 : $11\frac{1}{2}$
What cost 917 lb. at $22d.$ per lb.?	84 : 1 : 2
At $22\frac{1}{2}d.$ per Bushel, what cost 971 Bushels?	90 : — : $4\frac{1}{2}$
At $22\frac{1}{2}d.$ per Pair, what cost 917 Pair?	85 : 19 : $4\frac{1}{2}$
At $22\frac{1}{2}d.$ per C. what cost 173 C.?	16 : 7 : $11\frac{1}{2}$
What cost 101 Yards, at $23d.$ per Yard?	9 : 13 : 7
What cost 723 Ells, at $23\frac{1}{2}d.$ per Ell?	70 : — : $9\frac{1}{2}$
At $23\frac{1}{2}d.$ per Ell, what cost 808 Ells?	79 : 2 : 4
At $23\frac{1}{2}d.$ per Dozen, what cost 971 Dozen?	96 : 1 : $9\frac{1}{2}$

PRAXIS

PRAXIS on several of the foregoing Cases.

In the following Examples where there is an aliquot Part of a Pound in the given Price, you may either make it a Part of a Part, or a Part of a Pound.

Examples.

401. 371 C. at 2s. 1d. $\frac{1}{4}$ C.

$$\begin{array}{r} \text{s. d.} \\ 1: 8 \text{ -- } \frac{1}{12} \\ 5 \text{ -- } \frac{1}{4} \\ \hline 2: 1 \end{array} \quad \begin{array}{l} 371 \text{ C.} \\ \hline 30 : 18 : 4 \text{ Case III.} \\ 7 : 14 : 7 \\ \hline \text{£ } 38 : 12 : 11 \text{ Answer.} \end{array}$$

* Of 1s. 8d.

See Example 528.

402. 307 Yards, at 2s. 5d. $\frac{1}{4}$ Yard.

$$\begin{array}{r} \text{s. d.} \\ 2: \text{ -- } \frac{1}{10} \\ 4 \text{ -- } \frac{1}{20} \\ 1 \text{ -- } \frac{1}{4} \\ \hline 2: 5 \end{array} \quad \begin{array}{l} 307 \text{ Yds.} \\ \hline 30 : 14 : \text{ -- Case IV.} \\ 5 : 2 : 4 \\ 1 : 5 : 7 \\ \hline \text{£ } 37 : 1 : 11 \text{ Answer.} \end{array}$$

403. 207 lb. at 2s. 7d. $\frac{1}{4}$ lb.

$$\begin{array}{r} \text{s. d.} \\ 2: \text{ -- } \frac{1}{10} \\ 6 \text{ -- } \frac{1}{20} \\ 1 \text{ -- } \frac{1}{2} \\ \hline 2: 7 \end{array} \quad \begin{array}{l} 207 \text{ lb.} \\ \hline 20 : 14 : \text{ -- Case IV.} \\ 5 : 3 : 6 \\ \text{ -- } : 17 : 3 \\ \hline \text{£ } 26 : 14 : 9 \text{ Answer.} \end{array}$$

404. 907 Dozen, at 2s. 11d. $\frac{1}{4}$ Dozen.

$$\begin{array}{r} \text{s. d.} \\ 2: 6 \text{ -- } \frac{1}{12} \\ 5 \text{ -- } \frac{1}{6} \\ \hline 2: 11 \end{array} \quad \begin{array}{l} 907 \text{ Dzx.} \\ \hline 113 : 7 : 6 \text{ Case III.} \\ 18 : 17 : 11 \\ \hline \text{£ } 132 : 5 : 5 \text{ Answer.} \end{array}$$

* Of 2s. 6d.

405. 319 Yards, at 3s. 1d. $\frac{1}{4}$ Yard.

$$\begin{array}{r} \text{s. d.} \\ 2: \text{ -- } \frac{1}{10} \\ 1: \text{ -- } \frac{1}{2} \\ 1 \text{ -- } \frac{1}{12} \\ \hline 3: 1 \end{array} \quad \begin{array}{l} 319 \text{ Yds.} \\ \hline 31 : 18 : \text{ -- Case IV.} \\ 15 : 19 : \text{ --} \\ 1 : 6 : 7 \\ \hline \text{£ } 49 : 3 : 7 \text{ Answer.} \end{array}$$

* Of 2s.

406. 173 Feet, at 3s. 3d. $\frac{1}{4}$ Foot.

$$\begin{array}{r} \text{s. d.} \\ 2: \text{ -- } \frac{1}{10} \\ 1: \text{ -- } \frac{1}{2} \\ 3 \text{ -- } \frac{1}{4} \\ \hline 3: 3 \end{array} \quad \begin{array}{l} 173 \text{ Feet.} \\ \hline 17 : 6 : \text{ --} \\ 8 : 13 : \text{ --} \\ 2 : 3 : 3 \\ \hline \text{£ } 28 : 2 : 3 \text{ Answer.} \end{array}$$

407. 731 C. at 3s. 5d. $\frac{1}{4}$ C.

$$\begin{array}{r} \text{s. d.} \\ 2: 6 \text{ -- } \frac{1}{10} \\ 6 \text{ -- } \frac{1}{20} \\ 5 \text{ -- } \frac{1}{2} \\ \hline 3: 5 \end{array} \quad \begin{array}{l} 731 \text{ C.} \\ \hline 91 : 7 : 6 \text{ Case III.} \\ 18 : 5 : 6 \text{ Case II.} \\ 15 : 4 : 7 \\ \hline \text{£ } 124 : 17 : 7 \text{ Answer.} \end{array}$$

* Of 2s. 6d.

408. 831 Ells, at 3s. 9d. $\frac{1}{4}$ Ell.

$$\begin{array}{r} \text{s. d.} \\ 3: 4 \text{ -- } \frac{1}{12} \\ 5 \text{ -- } \frac{1}{6} \\ \hline 3: 9 \end{array} \quad \begin{array}{l} 831 \text{ Ells.} \\ \hline 138 : 10 : \text{ --} \\ 17 : 6 : 3 \\ \hline \text{£ } 155 : 16 : 3 \text{ Answer.} \end{array}$$

* Of 3s. 4d.

409. 971 Yards,

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Praxis on several of the foregoing Cases. 89

409. 971 Yards, at 3s. 11d. $\frac{1}{2}$ Yard.
971 Yds.

$$\begin{array}{r|l} s. & d. \\ 3: & 4 \text{ --- } \frac{1}{8} \\ 6: & \frac{1}{20} \\ 1: & \frac{1}{6} \end{array} \left| \begin{array}{l} 161 : 16 : 8 \\ 24 : 5 : 6 \\ 4 : \text{ --- } : 11 \end{array} \right.$$

3: 11 £ 190 : 3 : 1 Answer.

410. 809 Loads, at 4s. 1d. $\frac{1}{2}$ Load.

809 Loads.

$$\begin{array}{r|l} s. & d. \\ 3: & 4 \text{ --- } \frac{1}{8} \\ 8: & \frac{1}{20} \\ 1: & \frac{1}{6} \end{array} \left| \begin{array}{l} 134 : 16 : 8 \\ 26 : 19 : 4 \\ 3 : 7 : 5 \end{array} \right.$$

4: 1 £ 165 : 3 : 5 Answer.

* Of 3s. 4d.

411. 137 Thousand, at 4s. 5d. $\frac{1}{2}$ Thousand.

137 Thous.

$$\begin{array}{r|l} s. & d. \\ 4: & \text{ --- } \frac{1}{2} \\ 4: & \frac{1}{20} \\ 1: & \frac{1}{4} \end{array} \left| \begin{array}{l} 27 : 8 : \text{ --- } \\ 2 : 5 : 8 \\ \text{ --- } : 11 : 5 \end{array} \right.$$

4: 5 £ 30 : 5 : 1 Answer.

412. 701 C. at 4s. 7d. $\frac{1}{2}$ C.

$$\begin{array}{r|l} s. & d. \\ 4: & \text{ --- } \frac{1}{2} \\ 6: & \frac{1}{20} \\ 1: & \frac{1}{6} \end{array} \left| \begin{array}{l} 140 : 4 : \text{ --- } \\ 17 : 10 : 6 \\ 2 : 18 : 5 \end{array} \right.$$

4: 7 £ 160 : 12 : 11 Answer.

See Example 530.

413. 373 lb. at 4s. 9d. $\frac{1}{2}$ lb.

$$\begin{array}{r|l} s. & d. \\ 4: & \text{ --- } \frac{1}{2} \\ 6: & \frac{1}{20} \\ 3: & \frac{1}{2} \end{array} \left| \begin{array}{l} 74 : 12 : \text{ --- } \\ 9 : 6 : 6 \\ 4 : 13 : 3 \end{array} \right.$$

4: 9 £ 88 : 11 : 9 Answer.

See Example 531.

414. 871 Ells, at 4s. 10d. $\frac{1}{2}$ Ell.
871 Ells.

$$\begin{array}{r|l} s. & d. \\ 4: & \text{ --- } \frac{1}{2} \\ 6: & \frac{1}{20} \\ 4: & \frac{1}{20} \end{array} \left| \begin{array}{l} 174 : 4 : \text{ --- } \\ 21 : 15 : 6 \\ 14 : 10 : 4 \end{array} \right.$$

4: 10 £ 210 : 9 : 10 Answer.

See Example 532.

415. 137 lb. at 4s. 11d. $\frac{1}{2}$ lb.

$$\begin{array}{r|l} s. & d. \\ 4: & \text{ --- } \frac{1}{2} \\ 8: & \frac{1}{20} \\ 3: & \frac{1}{20} \end{array} \left| \begin{array}{l} 27 : 8 : \text{ --- } \\ 4 : 11 : 4 \\ 1 : 14 : 3 \end{array} \right.$$

4: 11 £ 33 : 13 : 7 Answer.

416. 371 C. at 5s. 1d. $\frac{1}{2}$ C.

$$\begin{array}{r|l} s. & d. \\ 4: & \text{ --- } \frac{1}{2} \\ 1: & \frac{1}{20} \\ 1: & \frac{1}{20} \end{array} \left| \begin{array}{l} 74 : 4 : \text{ --- } \\ 18 : 11 : \text{ --- } \\ 1 : 10 : 11 \end{array} \right.$$

5: 1 £ 94 : 5 : 11 Answer.

417. 171 C. at 5s. 5d. $\frac{1}{2}$ C.

$$\begin{array}{r|l} s. & d. \\ 5: & \text{ --- } \frac{1}{2} \\ 5: & \frac{1}{20} \end{array} \left| \begin{array}{l} 42 : 15 : \text{ --- } \\ 3 : 11 : 3 \end{array} \right.$$

5: 5 £ 46 : 6 : 3 Answer.

* Of 5s.

418. 837 Yards, at 5s. 7d. $\frac{1}{2}$ Yard.

837 Yds.

$$\begin{array}{r|l} s. & d. \\ 5: & \text{ --- } \frac{1}{2} \\ 6: & \frac{1}{20} \\ 1: & \frac{1}{6} \end{array} \left| \begin{array}{l} 209 : 5 : \text{ --- } \\ 20 : 18 : 6 \\ 3 : 9 : 9 \end{array} \right.$$

5: 7 £ 233 : 13 : 3 Answer.

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419. 313 lb. at 5s. 9d. $\frac{1}{2}$ lb.

$$\begin{array}{r|l} s. & d. \\ 5: & \frac{1}{2} \\ 6: & \frac{1}{4} \\ 3: & \frac{1}{2} \end{array} \left| \begin{array}{l} 78 : 5 : - \\ 7 : 16 : 6 \\ 3 : 18 : 3 \end{array} \right.$$

5: 9 £ 89 : 19 : 9 Answer.

See Example 533.

420. 127 C. at 5s. 11d. $\frac{1}{2}$ C.

$$\begin{array}{r|l} s. & d. \\ 5: & \frac{1}{2} \\ 8: & \frac{1}{4} \\ 3: & \frac{1}{8} \end{array} \left| \begin{array}{l} 31 : 15 : - \\ 4 : 4 : 8 \\ 1 : 11 : 9 \end{array} \right.$$

5: 11 £ 37 : 11 : 5 Answer.

421. 179 Gallons, at 6s. 1d. $\frac{1}{2}$ Gall.

179 Gall.

$$\begin{array}{r|l} s. & d. \\ 5: & \frac{1}{2} \\ 1: & \frac{1}{4} \\ 1: & \frac{1}{8} \end{array} \left| \begin{array}{l} 44 : 15 : - \\ 8 : 19 : - \\ - : 14 : 11 \end{array} \right.$$

6: 1 £ 54 : 8 : 11 Answer.

422. 309 Gallons, at 6s. 5d. $\frac{1}{2}$ Gall.

309 Gall.

$$\begin{array}{r|l} s. & d. \\ 5: & \frac{1}{2} \\ 5: & \frac{1}{4} \\ 1: & \frac{1}{8} \end{array} \left| \begin{array}{l} 77 : 5 : - \\ 6 : 8 : 9 \\ 15 : 9 : - \end{array} \right.$$

6: 5 £ 99 : 2 : 9 Answer.

* Of 5s.

423. 735 Dozen, at 6s. 7d. $\frac{1}{2}$ Doz.

735 Doz.

$$\begin{array}{r|l} s. & d. \\ 6: & \frac{1}{2} \\ 6: & \frac{1}{4} \\ 1: & \frac{1}{8} \end{array} \left| \begin{array}{l} 220 : 10 : - \\ 18 : 7 : 6 \\ 3 : 1 : 3 \end{array} \right.$$

6: 7 £ 241 : 18 : 9 Answer.

424. 371 Pair, at 6s. 9d. $\frac{1}{2}$ Pair.

371 Pair.

$$\begin{array}{r|l} s. & d. \\ 6: & \frac{1}{2} \\ 8: & \frac{1}{4} \\ 1: & \frac{1}{8} \end{array} \left| \begin{array}{l} 111 : 6 : - \\ 12 : 7 : 4 \\ 1 : 10 : 11 \end{array} \right.$$

6: 9 £ 125 : 4 : 3 Answer.

425. 171 lb. at 7s. 1d. $\frac{1}{2}$ lb.

$$\begin{array}{r|l} s. & d. \\ 6: & \frac{1}{2} \\ 1: & \frac{1}{4} \\ 1: & \frac{1}{8} \end{array} \left| \begin{array}{l} 51 : 6 : - \\ 8 : 11 : - \\ - : 14 : 3 \end{array} \right.$$

7: 1 £ 60 : 11 : 3 Answer.

426. 173 oz. at 7s. 3d. $\frac{1}{2}$ oz.

$$\begin{array}{r|l} s. & d. \\ 6: & \frac{1}{2} \\ 1: & \frac{1}{4} \\ 3: & \frac{1}{8} \end{array} \left| \begin{array}{l} 51 : 18 : - \\ 8 : 13 : - \\ 2 : 3 : 3 \end{array} \right.$$

7: 3 £ 62 : 14 : 3 Answer.

427. 831 Gros, at 7s. 5d. $\frac{1}{2}$ Gros.

831 Gros.

$$\begin{array}{r|l} s. & d. \\ 6: & 8 \\ 8: & \frac{1}{4} \\ 1: & \frac{1}{8} \end{array} \left| \begin{array}{l} 277 : - : - \\ 27 : 14 : - \\ 3 : 9 : 3 \end{array} \right.$$

7: 5 £ 308 : 3 : 3 Answer.

428. 761 Yards, at 7s. 7d. $\frac{1}{2}$ Yard.

761 Yds.

7

$$\begin{array}{r|l} d. & \\ 7: & \frac{1}{2} \end{array} \left| \begin{array}{l} 5327 \\ 443 : 11 \end{array} \right.$$

$$\begin{array}{r|l} 577 & 0 : 11 \\ 2 & 0 \end{array}$$

£ 288 : 10 : 11 Answer.

* Of 7s.

429. 713 C.

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91

429. 713 C. at 7s. 9d. $\frac{1}{4}$ C.

$$\begin{array}{r} s. \quad d. \\ 6: 8 -- \frac{1}{2} \\ 1: -- \frac{1}{10} \\ 1 -- \frac{1}{15} \end{array} \left| \begin{array}{l} 237 : 13 : 4 \\ 35 : 13 : - \\ 2 : 19 : 5 \end{array} \right.$$

7: 9 £ 276 : 5 : 9 Answer.

See Example 534.

430. 371 Sacks, at 7s. 10d. each.

371 Sacks.

$$\begin{array}{r} s. \quad d. \\ 6: 8 -- \frac{1}{2} \\ 1: -- \frac{1}{10} \\ 2 -- \frac{1}{6} \end{array} \left| \begin{array}{l} 123 : 13 : 4 \\ 18 : 11 : - \\ 3 : 1 : 10 \end{array} \right.$$

7: 10 £ 145 : 6 : 2 Answer.

See Example 535.

431. 817 Yards, at 7s. 11d. $\frac{1}{4}$ Yard.

817 Yds.

$$\begin{array}{r} s. \quad d. \\ 6: 8 -- \frac{1}{2} \\ 1: -- \frac{1}{10} \\ 3 -- \frac{1}{4} \end{array} \left| \begin{array}{l} 272 : 6 : 8 \\ 40 : 17 : - \\ 10 : 4 : 3 \end{array} \right.$$

7: 11 £ 323 : 7 : 11 Answer.

432. 873 Barrels, at 8s. 1d. each.

873 Bar.

$$\begin{array}{r} s. \quad d. \\ 6: 8 -- \frac{1}{2} \\ 1: -- \frac{1}{10} \\ 4 -- \frac{1}{3} \\ 1 -- \frac{1}{4} \end{array} \left| \begin{array}{l} 291 : - : - \\ 43 : 13 : - \\ 14 : 11 : - \\ 3 : 12 : 9 \end{array} \right.$$

8: 1 £ 352 : 16 : 9 Answer.

433. 713 Yards, at 8s. 5d. $\frac{1}{4}$ Yard.

713 Yds.

$$\begin{array}{r} s. \quad d. \\ 8: -- \frac{1}{10} \\ 4 -- \frac{1}{20} \\ 1 -- \frac{1}{4} \end{array} \left| \begin{array}{l} 285 : 4 : - \\ 11 : 17 : 8 \\ 2 : 19 : 5 \end{array} \right.$$

8: 5 £ 300 : 1 : 1 Answer.

434. 175 C. at 8s. 7d. $\frac{1}{4}$ C.

$$\begin{array}{r} s. \quad d. \\ 8: -- \frac{1}{10} \\ 4 -- \frac{1}{20} \\ 3 -- \frac{1}{10} \end{array} \left| \begin{array}{l} 70 : - : - \\ 2 : 18 : 4 \\ 2 : 3 : 9 \end{array} \right.$$

8: 7 £ 75 : 2 : 1 Answer.

435. 137 Gallons, at 8s. 9d. $\frac{1}{4}$ Gallon.

137 Gall.

$$\begin{array}{r} s. \quad d. \\ 8: -- \frac{1}{10} \\ 6 -- \frac{1}{20} \\ 3 -- \frac{1}{2} \end{array} \left| \begin{array}{l} 54 : 16 : - \\ 3 : 8 : 6 \\ 1 : 14 : 3 \end{array} \right.$$

8: 9 £ 59 : 18 : 9 Answer.

436. 751 Bushels, at 8s. 10d. $\frac{1}{4}$ Bushel.

751 Bush.

$$\begin{array}{r} s. \quad d. \\ 8: -- \frac{1}{10} \\ 8 -- \frac{1}{20} \\ 2 -- \frac{1}{4} \end{array} \left| \begin{array}{l} 300 : 8 : - \\ 25 : - : 8 \\ 6 : 5 : 2 \end{array} \right.$$

8: 10 £ 331 : 13 : 10 Answer.

437. 151 C. at 8s. 11d. $\frac{1}{4}$ C.

$$\begin{array}{r} s. \quad d. \\ 8: -- \frac{1}{10} \\ 8 -- \frac{1}{20} \\ 3 -- \frac{1}{10} \end{array} \left| \begin{array}{l} 60 : 8 : - \\ 5 : - : 8 \\ 1 : 17 : 9 \end{array} \right.$$

8: 11 £ 67 : 6 : 5 Answer.

438. 171 Gallons, at 9s. 1d. $\frac{1}{4}$ Gallon.

171 Gall.

$$\begin{array}{r} s. \quad d. \\ 8: -- \frac{1}{10} \\ 1: -- \frac{1}{20} \\ 1 -- \frac{1}{12} \end{array} \left| \begin{array}{l} 68 : 8 : - \\ 8 : 11 : - \\ - : 14 : 3 \end{array} \right.$$

9: 1 £ 77 : 13 : 3 Answer.

439. 871 C. at 9s. 3d. $\frac{4}{10}$ C.

$$\begin{array}{r} s. \quad d. \\ 8 : - - - \frac{4}{10} \quad 348 : 8 : - \\ 1 : - - - \frac{1}{10} \quad 43 : 11 : - \\ \hline 3 - - \frac{1}{2} \quad 10 : 17 : 9 \end{array}$$

9: 3 £ 402 : 16 : 9 Answer.

440. 135 Yards, at 9s. 5d. $\frac{4}{10}$ Yard.

$$\begin{array}{r} s. \quad d. \\ 5 : - - - \frac{1}{4} \quad 33 : 15 : - \\ \quad 5 - * \frac{1}{12} \quad 2 : 16 : 3 \\ 4 : - - - \frac{1}{2} \quad 27 : - : - \\ \hline \end{array}$$

9: 5 £ 63 : 11 : 3 Answer.

* Of 5s.

441. 703 lb. at 9s. 6d. $\frac{4}{10}$ lb.

$$\begin{array}{r} s. \quad d. \\ 8 : - - - \frac{4}{10} \quad 281 : 4 : - \\ 1 : - - - \frac{1}{10} \quad 35 : 3 : - \\ \quad 6 - - \frac{1}{2} \quad 17 : 11 : 6 \end{array}$$

9: 6 £ 333 : 18 : 6 Answer.

See Example 537.

442. 317 C. at 9s. 7d. $\frac{4}{10}$ C.

$$\begin{array}{r} s. \quad d. \\ 6 : 8 - - \frac{1}{10} \quad 105 : 13 : 4 \\ 2 : 6 - - \frac{1}{10} \quad 39 : 12 : 6 \\ \quad 5 - - \frac{1}{2} \quad 6 : 12 : 1 \end{array}$$

9: 7 £ 151 : 17 : 11 Answer.

443. 173 C. at 9s. 9d. $\frac{4}{10}$ C.

$$\begin{array}{r} s. \quad d. \\ 8 : - - - \frac{4}{10} \quad 69 : 4 : - \\ 1 : 8 - - \frac{1}{10} \quad 14 : 8 : 4 \\ \quad 1 - * \frac{1}{20} \quad - : 14 : 5 \end{array}$$

9: 9 £ 84 : 6 : 9 Answer.

* Of 1s. 8d.

See Example 538.

444. 371 Yards, at 9s. 10d. $\frac{4}{10}$ Yard.

$$\begin{array}{r} s. \quad d. \\ 8 : - - - \frac{4}{10} \quad 148 : 8 : - \\ 1 : 8 - - \frac{1}{10} \quad 30 : 18 : 4 \\ \quad 2 - * \frac{1}{10} \quad 3 : 1 : 10 \end{array}$$

9: 10 £ 182 : 8 : 2 Answer.

* Of 1s. 8d.

See Example 539.

445. 375 Ells, at 9s. 11d. $\frac{4}{10}$ Ell.

$$\begin{array}{r} s. \quad d. \\ 8 : - - - \frac{4}{10} \quad 150 : - : - \\ 1 : 8 - - \frac{1}{10} \quad 31 : 5 : - \\ \quad 3 - - \frac{1}{10} \quad 4 : 13 : 9 \end{array}$$

9: 11 £ 185 : 18 : 9 Answer.

446. 139 C. at 10s. 1d. $\frac{4}{10}$ C.

$$\begin{array}{r} s. \quad d. \\ 8 : - - - \frac{4}{10} \quad 55 : 12 : - \\ 1 : 8 - - \frac{1}{10} \quad 11 : 11 : 8 \\ \quad 5 - - \frac{1}{4} \quad 2 : 17 : 11 \end{array}$$

10: 1 £ 70 : 1 : 7 Answer.

447. 173 Bushels, at 10s. 5d. $\frac{4}{10}$ Bushel.

$$\begin{array}{r} s. \quad d. \\ 10 : - - - \frac{1}{2} \quad 86 : 10 : - \\ 4 - - \frac{1}{10} \quad 2 : 17 : 8 \\ 1 - - \frac{1}{4} \quad - : 14 : 5 \end{array}$$

10: 5 £ 90 : 2 : 1 Answer.

448. 837 C. at 10s. 7d. $\frac{4}{10}$ C.

$$\begin{array}{r} s. \quad d. \\ 10 : - - - \frac{1}{2} \quad 418 : 10 : - \\ 6 - - \frac{1}{10} \quad 20 : 18 : 6 \\ 1 - - \frac{1}{6} \quad 3 : 9 : 9 \end{array}$$

10: 7 £ 442 : 18 : 3 Answer.

449. 801 C.

449. 801 C. at 10s. 9d. $\frac{1}{4}$ C.

s.	d.	
10	—	$-\frac{1}{2}$ 400 : 10 : —
6	$-\frac{1}{40}$	20 : — : 6
3	$-\frac{1}{2}$	10 : — : 3
<hr/>		
10	9	£ 430 : 10 : 9 <i>Anfw.</i>

450. 173 Dozen, at 10s. 10d. $\frac{1}{4}$ Dozen.

173 Doz.		
s.	d.	
10	—	$-\frac{1}{2}$ 86 : 10 : —
10	$-\frac{1}{12}$	7 : 4 : 2
<hr/>		
10	10	£ 93 : 14 : 2 <i>Anfw.</i>

* Of 10s.

451. 171 Ells, at 10s. 11d. $\frac{1}{4}$ Ell.

171 Ells.		
s.	d.	
10	—	$-\frac{1}{2}$ 85 : 10 : —
8	$-\frac{1}{10}$	5 : 14 : —
3	$-\frac{1}{10}$	2 : 2 : 9
<hr/>		
10	11	£ 93 : 6 : 9 <i>Anfw.</i>

452. 179 Yards, at 11s. 1d. $\frac{1}{4}$ Yard.

179 Yds.		
s.	d.	
10	—	$-\frac{1}{2}$ 89 : 10 : —
1	$-\frac{1}{10}$	8 : 19 : —
1	$-\frac{1}{12}$	— : 14 : 11
<hr/>		
11	1	£ 99 : 3 : 11 <i>Anfw.</i>

453. 871 C. at 11s. 2d. $\frac{1}{4}$ C.

s.	d.	
10	—	$-\frac{1}{2}$ 435 : 10 : —
1	$-\frac{1}{10}$	43 : 11 : —
2	$-\frac{1}{10}$	7 : 5 : 2
<hr/>		
11	2	£ 486 : 6 : 2 <i>Anfw.</i>

454. 371 C. at 11s. 3d. $\frac{1}{4}$ C.

s.	d.	
10	—	$-\frac{1}{2}$ 185 : 10 : —
1	3	23 : 3 : 9
<hr/>		
11	3	£ 208 : 13 : 9 <i>Anfw.</i>

* Of 10s.

455. 131 C. at 11s. 5d. $\frac{1}{4}$ C.

s.	d.	
10	—	$-\frac{1}{2}$ 65 : 10 : —
1	$-\frac{1}{10}$	6 : 11 : —
3	$-\frac{1}{4}$	1 : 12 : 9
2	$-\frac{1}{6}$	1 : 1 : 10
<hr/>		
11	5	£ 74 : 15 : 7 <i>Anfw.</i>

456. 387 Gallons, at 11s. 6d. $\frac{1}{4}$ Gallon.

387 Gall.		
s.	d.	
10	—	$-\frac{1}{2}$ 193 : 10 : —
1	$-\frac{1}{10}$	19 : 7 : —
6	$-\frac{1}{2}$	9 : 13 : 6
<hr/>		
11	6	£ 222 : 10 : 6 <i>Anfw.</i>

See Example 540.

457. 371 C. at 11s. 7d. $\frac{1}{4}$ C.

s.	d.	
8	—	$-\frac{1}{10}$ 148 : 8 : —
3	4	61 : 16 : 8
3	$-\frac{1}{10}$	4 : 12 : 9
<hr/>		
11	7	£ 214 : 17 : 5 <i>Anfw.</i>

458. 107 Yards, at 11s. 9d. $\frac{1}{4}$ Yard.

107 Yds.		
s.	d.	
8	—	$-\frac{1}{10}$ 42 : 16 : —
3	4	17 : 16 : 8
5	$-\frac{1}{10}$	2 : 4 : 7
<hr/>		
11	9	£ 62 : 17 : 3 <i>Anfw.</i>

See Example 541.

459. 171 C.

459. 171 C. at 11s. 10d. $\frac{1}{2}$ C.

$$\begin{array}{r}
 s. \quad d. \\
 10: - \frac{1}{2} \quad 85 : 10 : - \\
 1: 8 - \frac{1}{10} \quad 14 : 5 : - \\
 2 - \frac{1}{10} \quad 1 : 8 : 6
 \end{array}$$

31: 10 \pounds 101 : 3 : 6 *Anfw.*

See Example 542.

460. 809 C. at 11s. 11d. $\frac{1}{2}$ C.

$$\begin{array}{r}
 s. \quad d. \\
 10: - \frac{1}{2} \quad 404 : 10 : - \\
 1: 8 - \frac{1}{10} \quad 67 : 8 : 4 \\
 3 - \frac{1}{10} \quad 10 : 2 : 3
 \end{array}$$

11: 11 \pounds 482 : - : 7 *Anfw.*461. 371 C. at 12s. 1d. $\frac{1}{2}$ C.

$$\begin{array}{r}
 s. \quad d. \\
 10: - \frac{1}{2} \quad 185 : 10 : - \\
 1: 8 - \frac{1}{10} \quad 30 : 18 : 4 \\
 5 - \frac{1}{4} \quad 7 : 14 : 7
 \end{array}$$

12: 1 \pounds 224 : 2 : 11 *Anfw.*462. 307 Yards, at 12s. 5d. $\frac{1}{2}$ Yard.

$$\begin{array}{r}
 s. \quad d. \\
 12: - \frac{6}{10} \quad 184 : 4 : - \\
 4 - \frac{1}{10} \quad 5 : 2 : 4 \\
 1 - \frac{1}{4} \quad 1 : 5 : 7
 \end{array}$$

12: 5 \pounds 190 : 11 : 11 *Anfw.*463. 107 Days, at 12s. 7d. $\frac{1}{2}$ Day.

$$\begin{array}{r}
 s. \quad d. \\
 12: - \frac{6}{10} \quad 64 : 4 : - \\
 6 - \frac{1}{10} \quad 2 : 13 : 6 \\
 1 - \frac{1}{2} \quad - : 8 : 11
 \end{array}$$

12: 7 \pounds 67 : 6 : 5 *Anfw.*464. 181 Quarters, at 12s. 9d. $\frac{1}{2}$ Quarter.

$$\begin{array}{r}
 s. \quad d. \\
 12: - \frac{6}{10} \quad 108 : 12 : - \\
 6 - \frac{1}{10} \quad 4 : 10 : 6 \\
 3 - \frac{1}{2} \quad 2 : 5 : 3
 \end{array}$$

12: 9 \pounds 115 : 7 : 9 *Anfw.*465. 371 lb. at 12s. 10d. $\frac{1}{2}$ lb.

$$\begin{array}{r}
 s. \quad d. \\
 12: - \frac{6}{10} \quad 222 : 12 : - \\
 8 - \frac{1}{10} \quad 12 : 7 : 4 \\
 2 - \frac{1}{4} \quad 3 : 1 : 10
 \end{array}$$

12: 10 \pounds 238 : 1 : 2 *Anfw.*466. 137 C. at 12s. 11d. $\frac{1}{2}$ C.

$$\begin{array}{r}
 s. \quad d. \\
 12: - \frac{6}{10} \quad 82 : 4 : - \\
 8 - \frac{1}{10} \quad 4 : 11 : 4 \\
 3 - \frac{1}{10} \quad 1 : 14 : 3
 \end{array}$$

12: 11 \pounds 88 : 9 : 7 *Anfw.*467. 871 oz. at 13s. 1d. $\frac{1}{2}$ oz.

$$\begin{array}{r}
 s. \quad d. \\
 12: - \frac{6}{10} \quad 522 : 12 : - \\
 1: - \frac{1}{10} \quad 43 : 11 : - \\
 1 - \frac{1}{10} \quad 3 : 12 : 7
 \end{array}$$

13: 1 \pounds 569 : 15 : 7 *Anfw.*468. 841 Yards, at 13s. 2d. $\frac{1}{2}$ Yard.

$$\begin{array}{r}
 s. \quad d. \\
 12: - \frac{6}{10} \quad 504 : 12 : - \\
 1: - \frac{1}{10} \quad 42 : 1 : - \\
 2 - \frac{1}{6} \quad 7 : - : 2
 \end{array}$$

13: 2 \pounds 553 : 13 : 2 *Anfw.*

469. 713 Ells,

469. 713 Ells, at 13s. 3d. $\frac{1}{4}$ Ell.
713 Ells.

s.	d.	
12	---	$\frac{6}{10}$ 427 : 16 : —
1	---	$\frac{1}{10}$ 35 : 13 : —
	3	---
		$\frac{1}{4}$ 8 : 18 : 3
<hr/>		
13	: 3	£ 472 : 7 : 3 <i>Ans.</i>

470. 107 Barrels, at 13s. 5d. $\frac{1}{4}$ Barrel.
107 Bar.

s.	d.	
12	---	$\frac{6}{10}$ 64 : 4 : —
1	---	$\frac{1}{10}$ 5 : 7 : —
	4	---
		$\frac{1}{4}$ 1 : 15 : 8
	1	---
		$\frac{1}{4}$ — : 8 : 11
<hr/>		
13	: 5	£ 71 : 15 : 7 <i>Ans.</i>

471. 807 Yards, at 13s. 6d. $\frac{1}{4}$ Yard.
807 Yds.

s.	d.	
12	---	$\frac{6}{10}$ 484 : 4 : —
1	---	$\frac{1}{10}$ 40 : 7 : —
	6	---
		$\frac{1}{2}$ 20 : 3 : 6
<hr/>		
13	: 6	£ 544 : 14 : 6 <i>Ans.</i>

See Example 543.

472. 809 C. at 13s. 7d. $\frac{1}{4}$ C.

s.	d.	
10	---	$\frac{7}{10}$ 404 : 10 : —
3	---	$\frac{1}{10}$ 134 : 16 : 8
	3	---
		$\frac{1}{10}$ 10 : 2 : 3
<hr/>		
13	: 7	£ 549 : 8 : 11 <i>Ans.</i>

473. 805 Grofs, at 13s. 9d. $\frac{1}{4}$ Grofs.
805 Grofs.

s.	d.	
10	---	$\frac{9}{10}$ 402 : 10 : —
3	---	$\frac{1}{10}$ 134 : 3 : 4
	5	---
		$\frac{1}{8}$ 16 : 15 : 5
<hr/>		
13	: 9	£ 553 : 8 : 9 <i>Ans.</i>

See Example 544.

474. 137 Dozen, at 13s. 10d. $\frac{1}{4}$ Dozen.
137 Doz.

s.	d.	
10	---	$\frac{1}{10}$ 68 : 10 : —
3	---	$\frac{1}{10}$ 22 : 16 : 8
	6	---
		$\frac{1}{10}$ 3 : 8 : 6
<hr/>		
13	: 10	£ 94 : 15 : 2 <i>Ans.</i>

See Example 545.

475. 703 oz. at 13s. 11d. $\frac{1}{4}$ oz.
703 oz.

s.	d.	
12	---	$\frac{6}{10}$ 421 : 16 : —
1	---	$\frac{1}{10}$ 58 : 11 : 8
	3	---
		$\frac{1}{10}$ 8 : 15 : 9
<hr/>		
13	: 11	£ 489 : 3 : 5 <i>Ans.</i>

476. 871 C. at 14s. 1d. $\frac{1}{4}$ C.

s.	d.	
12	---	$\frac{6}{10}$ 522 : 12 : —
1	---	$\frac{1}{10}$ 72 : 11 : 8
	5	---
		$\frac{1}{4}$ 18 : 2 : 11
<hr/>		
14	: 1	£ 613 : 6 : 7 <i>Ans.</i>

477. 107 Dozen, at 14s. 5d. $\frac{1}{4}$ Doz.
107 Doz.

s.	d.	
14	---	$\frac{7}{10}$ 74 : 18 : —
	4	---
		$\frac{1}{10}$ 1 : 15 : 8
	1	---
		$\frac{1}{4}$ — : 8 : 11
<hr/>		
14	: 5	£ 77 : 2 : 7 <i>Ans.</i>

478. 903 Grofs, at 14s. 7d. $\frac{1}{4}$ Grofs.
903 Grofs.

s.	d.	
14	---	$\frac{7}{10}$ 532 : 2 : —
	6	---
		$\frac{1}{10}$ 22 : 11 : 6
	1	---
		$\frac{1}{4}$ 3 : 15 : 3
<hr/>		
14	: 7	£ 658 : 8 : 9 <i>Ans.</i>

479. 139 C.

479. 139 C. at 14s. 9d. $\frac{1}{8}$ C.

$$\begin{array}{r} s. \quad d. \\ 14: \text{---} \frac{7}{8} \left| \begin{array}{l} 97 : 6 : \text{---} \\ 6 \text{---} \frac{1}{8} \left| \begin{array}{l} 3 : 9 : 6 \\ 3 \text{---} \frac{1}{8} \left| \begin{array}{l} 1 : 14 : 9 \end{array} \right. \end{array} \right. \end{array} \right. \end{array}$$

14: 9 £ 102 : 10 : 3 *Anfw.*

480. 761 Yards, at 14s. 10d. $\frac{1}{8}$ Yard.

761 Yds.

$$\begin{array}{r} s. \quad d. \\ 14: \text{---} \frac{7}{8} \left| \begin{array}{l} 532 : 14 : \text{---} \\ 6 \text{---} \frac{1}{8} \left| \begin{array}{l} 19 : \text{---} : 6 \\ 4 \text{---} \frac{1}{8} \left| \begin{array}{l} 12 : 13 : 8 \end{array} \right. \end{array} \right. \end{array} \right. \end{array}$$

14: 10 £ 564 : 8 : 2 *Anfw.*

481. 112 Ton, at 14s. 11d. $\frac{1}{8}$ Ton.

112 Ton.

$$\begin{array}{r} s. \quad d. \\ 14: \text{---} \frac{7}{8} \left| \begin{array}{l} 78 : 8 : \text{---} \\ 8 \text{---} \frac{1}{8} \left| \begin{array}{l} 3 : 14 : 8 \\ 3 \text{---} \frac{1}{8} \left| \begin{array}{l} 1 : 8 : \text{---} \end{array} \right. \end{array} \right. \end{array} \right. \end{array}$$

14: 11 £ 83 : 10 : 8 *Anfw.*

482. 137 lb. at 15s. 1d. $\frac{1}{8}$ lb.

137 lb.

$$\begin{array}{r} s. \quad d. \\ 14: \text{---} \frac{7}{8} \left| \begin{array}{l} 95 : 18 : \text{---} \\ 1: \text{---} \frac{1}{8} \left| \begin{array}{l} 6 : 17 : \text{---} \\ 1 \text{---} \frac{1}{8} \left| \begin{array}{l} \text{---} : 11 : 5 \end{array} \right. \end{array} \right. \end{array} \right. \end{array}$$

15: 1 £ 103 : 6 : 5 *Anfw.*

483. 109 Ells, at 15s. 2d. $\frac{1}{8}$ Ell.

109 Ells.

$$\begin{array}{r} s. \quad d. \\ 14: \text{---} \frac{7}{8} \left| \begin{array}{l} 76 : 6 : \text{---} \\ 1: 2 \text{---} \frac{1}{8} \left| \begin{array}{l} 6 : 7 : 2 \end{array} \right. \end{array} \right. \end{array}$$

15: 2 £ 82 : 13 : 2 *Anfw.*

* Cf 14s.

484. 371 C. at 15s. 3d. $\frac{1}{8}$ C.

$$\begin{array}{r} s. \quad d. \\ 14: \text{---} \frac{7}{8} \left| \begin{array}{l} 259 : 14 : \text{---} \\ 1: \text{---} \frac{1}{8} \left| \begin{array}{l} 18 : 11 : \text{---} \\ 3 \text{---} \frac{1}{8} \left| \begin{array}{l} 4 : 12 : 9 \end{array} \right. \end{array} \right. \end{array} \right. \end{array}$$

15: 3 £ 282 : 17 : 9 *Anfw.*

485. 371 Yards, at 15s. 5d. $\frac{1}{8}$ Yard.

371 Yds.

$$\begin{array}{r} s. \quad d. \\ 14: \text{---} \frac{7}{8} \left| \begin{array}{l} 259 : 14 : \text{---} \\ 1: 2 \text{---} \frac{1}{8} \left| \begin{array}{l} 21 : 12 : 10 \\ 3 \text{---} \frac{1}{8} \left| \begin{array}{l} 4 : 12 : 9 \end{array} \right. \end{array} \right. \end{array} \right. \end{array}$$

15: 5 £ 285 : 19 : 7 *Anfw.*

486. 101 Ells, at 15s. 6d. $\frac{1}{8}$ Ell.

101 Ells.

$$\begin{array}{r} s. \quad d. \\ 14: \text{---} \frac{7}{8} \left| \begin{array}{l} 70 : 14 : \text{---} \\ 1: \text{---} \frac{1}{8} \left| \begin{array}{l} 5 : 1 : \text{---} \\ 6 \text{---} \frac{1}{8} \left| \begin{array}{l} 2 : 10 : 6 \end{array} \right. \end{array} \right. \end{array} \right. \end{array}$$

15: 6 £ 78 : 5 : 6 *Anfw.*

See Example 547.

487. 127 Yards, at 15s. 7d. $\frac{1}{8}$ Yard.

127 Yds.

$$\begin{array}{r} s. \quad d. \\ 12: \text{---} \frac{6}{8} \left| \begin{array}{l} 76 : 4 : \text{---} \\ 3: 4 \text{---} \frac{1}{8} \left| \begin{array}{l} 21 : 3 : 4 \\ 3 \text{---} \frac{1}{8} \left| \begin{array}{l} 1 : 11 : 9 \end{array} \right. \end{array} \right. \end{array} \right. \end{array}$$

15: 7 £ 98 : 19 : 1 *Anfw.*

488. 709 Quarters, at 15s. 9d. $\frac{1}{8}$ Quarter.

709 Quar.

$$\begin{array}{r} s. \quad d. \\ 12: \text{---} \frac{6}{8} \left| \begin{array}{l} 425 : 8 : \text{---} \\ 3: 4 \text{---} \frac{1}{8} \left| \begin{array}{l} 118 : 3 : 4 \\ 5 \text{---} \frac{1}{8} \left| \begin{array}{l} 14 : 15 : 5 \end{array} \right. \end{array} \right. \end{array} \right. \end{array}$$

15: 9 £ 558 : 6 : 9 *Anfw.*

See Example 548.

489. 713 Ells,

489. 713 Ells, at 15s. 10d. $\frac{1}{8}$ Ell.

713 Ells.

$$\begin{array}{r} s. \quad d. \\ 12: - \frac{7}{10} \quad | \quad 427: 16: - \\ 3: 4 - \frac{1}{2} \quad | \quad 118: 16: 8 \\ 6 - \frac{1}{20} \quad | \quad 17: 16: 6 \end{array}$$

15: 10 £ 564 : 9 : 2 *Answe.*

See Example 549.

490. 107 C. at 15s. 11d. $\frac{1}{8}$ C.

107 C.

$$\begin{array}{r} s. \quad d. \\ 14: - \frac{7}{10} \quad | \quad 74: 18: - \\ 1: 8 - \frac{1}{10} \quad | \quad 8: 18: 4 \\ 3 - \frac{1}{10} \quad | \quad 1: 6: 9 \end{array}$$

15: 11 £ 85 : 3 : 1 *Answe.*

491. 809 lb. at 16s. 1d. $\frac{1}{8}$ lb.

809 lb.

$$\begin{array}{r} s. \quad d. \\ 14: - \frac{7}{10} \quad | \quad 566: 6: - \\ 1: 8 - \frac{1}{10} \quad | \quad 67: 8: 4 \\ 5 - \frac{1}{4} \quad | \quad 16: 17: 1 \end{array}$$

16: 1 £ 650 : 11 : 5 *Answe.*

492. 807 Quarters, at 16s. 5d. $\frac{1}{8}$ Quarter.

807 Quar.

$$\begin{array}{r} s. \quad d. \\ 16: - \frac{8}{10} \quad | \quad 645: 12: - \\ 4 - \frac{1}{20} \quad | \quad 13: 9: - \\ 1 - \frac{1}{4} \quad | \quad 3: 7: 3 \end{array}$$

16: 5 £ 662 : 8 : 3 *Answe.*

493. 709 C. at 16s. 7d. $\frac{1}{8}$ C.

709 C.

$$\begin{array}{r} s. \quad d. \\ 16: - \frac{8}{10} \quad | \quad 567: 4: - \\ 6 - \frac{1}{20} \quad | \quad 17: 14: 6 \\ 1 - \frac{1}{2} \quad | \quad 2: 19: 1 \end{array}$$

16: 7 £ 587 : 17 : 7 *Answe.*

494. 703 C. at 16s. 9d. $\frac{1}{8}$ C.

703 C.

$$\begin{array}{r} s. \quad d. \\ 16: - \frac{8}{10} \quad | \quad 562: 8: - \\ 6 - \frac{1}{20} \quad | \quad 17: 11: 6 \\ 3 - \frac{1}{2} \quad | \quad 8: 15: 9 \end{array}$$

16: 9 £ 588 : 15 : 3 *Answe.*

495. 107 Dozen, at 16s. 10d. $\frac{1}{8}$ Dozen.

107 Doz.

$$\begin{array}{r} s. \quad d. \\ 16: - \frac{8}{10} \quad | \quad 85: 12: - \\ 6 - \frac{1}{20} \quad | \quad 2: 13: 6 \\ 4 - \frac{1}{20} \quad | \quad 1: 15: 8 \end{array}$$

16: 10 £ 90 : 1 : 2 *Answe.*

496. 175 Yards, at 16s. 11d. $\frac{1}{8}$ Yard.

175 Yds.

$$\begin{array}{r} s. \quad d. \\ 16: - \frac{8}{10} \quad | \quad 140: - : - \\ 8 - \frac{1}{20} \quad | \quad 5: 16: 8 \\ 3 - \frac{1}{20} \quad | \quad 2: 3: 9 \end{array}$$

16: 11 £ 148 : - : 5 *Answe.*

497. 137 Ells, at 17s. 1d. $\frac{1}{8}$ Ell.

137 Ells.

$$\begin{array}{r} s. \quad d. \\ 16: - \frac{8}{10} \quad | \quad 109: 12: - \\ 1: - \frac{1}{20} \quad | \quad 6: 17: - \\ 1 - \frac{1}{10} \quad | \quad - : 11: 5 \end{array}$$

17: 1 £ 117 : - : 5 *Answe.*

498. 707 lb. at 17s. 2d. $\frac{1}{8}$ lb.

707 lb.

$$\begin{array}{r} s. \quad d. \\ 16: - \frac{8}{10} \quad | \quad 565: 12: - \\ 1: - \frac{1}{20} \quad | \quad 35: 7: - \\ 2 - \frac{1}{2} \quad | \quad 5: 17: 10 \end{array}$$

17: 2 £ 606 : 16 : 10 *Answe.*

499. 309 C.

499. 309 C. at 17s. 3d. $\frac{1}{10}$ C.
309 C.

$$\begin{array}{r} s. \quad d. \\ 16: \text{---} \frac{3}{10} \left| 247 : 4 : \text{---} \right. \\ 1: \text{---} \frac{1}{10} \left| 15 : 9 : \text{---} \right. \\ 3: \text{---} \frac{1}{2} \left| 3 : 17 : 3 \right. \end{array}$$

17: 3 £ 266 : 10 : 3 *Ans.*

500. 171 Dozen, at 17s. 4d. $\frac{1}{10}$ Dozen.
171 Doz.

$$\begin{array}{r} s. \quad d. \\ 16: \text{---} \frac{3}{10} \left| 136 : 16 : \text{---} \right. \\ 1: 4 \frac{1}{10} \left| 11 : 8 : \text{---} \right. \end{array}$$

17: 4 £ 148 : 4 : — *Ans.*

* Of 16s.

501. 195 Grofs, at 17s. 5d. $\frac{1}{10}$ Grofs.
195 Grofs.

$$\begin{array}{r} s. \quad d. \\ 16: \text{---} \frac{3}{10} \left| 156 : \text{---} : \text{---} \right. \\ 1: \text{---} \frac{1}{10} \left| 9 : 15 : \text{---} \right. \\ 4: \text{---} \frac{1}{2} \left| 3 : 5 : \text{---} \right. \\ 1: \text{---} \frac{1}{4} \left| \text{---} : 16 : 3 \right. \end{array}$$

17: 5 £ 169 : 6 : 3 *Ans.*

502. 357 Tons, at 17s. 7d. $\frac{1}{10}$ Ton.
357 Ton.

$$\begin{array}{r} s. \quad d. \\ 14: \text{---} \frac{7}{10} \left| 249 : 18 : \text{---} \right. \\ 3: 4 \frac{1}{10} \left| 59 : 10 : \text{---} \right. \\ 3: \text{---} \frac{1}{10} \left| 4 : 9 : 3 \right. \end{array}$$

17: 7 £ 313 : 17 : 3 *Ans.*

503. 713 C. at 17s. 9d. $\frac{1}{10}$ C.
713 C.

$$\begin{array}{r} s. \quad d. \\ 14: \text{---} \frac{7}{10} \left| 499 : 2 : \text{---} \right. \\ 3: 4 \frac{1}{10} \left| 118 : 16 : 8 \right. \\ 5: \text{---} \frac{1}{10} \left| 14 : 17 : 1 \right. \end{array}$$

17: 9 £ 632 : 15 : 9 *Ans.*

See Example 550.

504. 307 lb. at 17s. 10d. $\frac{1}{10}$ lb.
307 lb.

$$\begin{array}{r} s. \quad d. \\ 14: \text{---} \frac{7}{10} \left| 214 : 18 : \text{---} \right. \\ 3: 4 \frac{1}{10} \left| 51 : 3 : 4 \right. \\ 6: \text{---} \frac{1}{10} \left| 7 : 13 : 6 \right. \end{array}$$

17: 10 £ 273 : 14 : 10 *Ans.*

See Example 551.

505. 175 C. at 17s. 11d. $\frac{1}{10}$ C.
175 C.

$$\begin{array}{r} s. \quad d. \\ 16: \text{---} \frac{3}{10} \left| 140 : \text{---} : \text{---} \right. \\ 1: 8 \frac{1}{10} \left| 14 : 11 : 8 \right. \\ 3: \text{---} \frac{1}{10} \left| 2 : 3 : 9 \right. \end{array}$$

17: 11 £ 156 : 15 : 5 *Ans.*

506. 179 Dozen, at 18s. 1d. $\frac{1}{10}$ Dozen.
179 Doz.

$$\begin{array}{r} s. \quad d. \\ 16: \text{---} \frac{3}{10} \left| 143 : 4 : \text{---} \right. \\ 1: 8 \frac{1}{10} \left| 14 : 18 : 4 \right. \\ 5: \text{---} \frac{1}{2} \left| 3 : 14 : 7 \right. \end{array}$$

18: 1 £ 161 : 16 : 11 *Ans.*

507. 197 C. at 18s. 5d. $\frac{1}{10}$ C.
197 C.

$$\begin{array}{r} s. \quad d. \\ 18: \text{---} \frac{5}{10} \left| 177 : 6 : \text{---} \right. \\ 4: \text{---} \frac{1}{10} \left| 3 : 5 : 8 \right. \\ 1: \text{---} \frac{1}{2} \left| \text{---} : 16 : 5 \right. \end{array}$$

18: 5 £ 181 : 8 : 1 *Ans.*

508. 709 Loads, at 18s. 7d. $\frac{1}{10}$ Load.
709 Loads.

$$\begin{array}{r} s. \quad d. \\ 18: \text{---} \frac{7}{10} \left| 638 : 2 : \text{---} \right. \\ 6: \text{---} \frac{1}{10} \left| 17 : 14 : 6 \right. \\ 1: \text{---} \frac{1}{2} \left| 2 : 19 : 1 \right. \end{array}$$

18: 7 £ 658 : 15 : 7 *Ans.*

509. 199 C.

509. 199 C. at 18s. 9d. $\frac{4}{10}$ C.

s. d.

$$\begin{array}{r|l} 18: & \frac{9}{10} \\ 6: & \frac{1}{10} \\ 3: & \frac{1}{2} \end{array} \quad \begin{array}{l} 179: 2: - \\ 4: 19: 6 \\ 2: 9: 9 \end{array}$$

$$18: 9 \quad \pounds 186: 11: 3 \text{ Answ.}$$

510. 137 Grosfs, at 18s. 10d. $\frac{4}{10}$ Grosfs.

137 Grosfs.

s. d.

$$\begin{array}{r|l} 18: & \frac{10}{10} \\ 6: & \frac{1}{10} \\ 4: & \frac{1}{10} \end{array} \quad \begin{array}{l} 123: 6: - \\ 3: 8: 6 \\ 2: 5: 8 \end{array}$$

$$18: 10 \quad \pounds 129: -: 2 \text{ Answ.}$$

511. 171 C. at 18s. 11d. $\frac{4}{10}$ C.

171 C.

s. d.

$$\begin{array}{r|l} 18: & \frac{11}{10} \\ 8: & \frac{1}{10} \\ 3: & \frac{1}{10} \end{array} \quad \begin{array}{l} 153: 18: - \\ 5: 14: - \\ 2: 2: 9 \end{array}$$

$$18: 11 \quad \pounds 161: 14: 9 \text{ Answ.}$$

512. 807 Dozen, at 19s. 1d. $\frac{4}{10}$ Dozen.

807 Doz.

s. d.

$$\begin{array}{r|l} 18: & \frac{1}{10} \\ 1: & \frac{1}{10} \\ 1: & \frac{1}{10} \end{array} \quad \begin{array}{l} 726: 6: - \\ 40: 7: - \\ 3: 7: 3 \end{array}$$

$$19: 1 \quad \pounds 770: -: 3 \text{ Answ.}$$

513. 979 Grosfs, at 19s. 2d. $\frac{4}{10}$ Grosfs.

979 Grosfs.

s. d.

$$\begin{array}{r|l} 18: & \frac{2}{10} \\ 1: & \frac{1}{10} \\ 2: & \frac{1}{10} \end{array} \quad \begin{array}{l} 881: 2: - \\ 48: 19: - \\ 8: 3: 2 \end{array}$$

$$19: 2 \quad \pounds 938: 4: 2 \text{ Answ.}$$

514. 173 Grosfs, at 19s. 3d. $\frac{4}{10}$ Grosfs.

173 Grosfs.

s. d.

$$\begin{array}{r|l} 18: & \frac{3}{10} \\ 1: & \frac{1}{10} \\ 3: & \frac{1}{2} \end{array} \quad \begin{array}{l} 155: 14: - \\ 8: 13: - \\ 2: 3: 3 \end{array}$$

$$19: 3 \quad \pounds 166: 10: 3 \text{ Answ.}$$

515. 473 C. at 19s. 4d. $\frac{4}{10}$ C.

s. d.

$$\begin{array}{r|l} 18: & \frac{4}{10} \\ 1: & \frac{1}{10} \\ 4: & \frac{1}{2} \end{array} \quad \begin{array}{l} 425: 14: - \\ 23: 13: - \\ 7: 17: 8 \end{array}$$

$$19: 4 \quad \pounds 457: 4: 8 \text{ Answ.}$$

See Example 212, and 300.

516. 193 Dozen, at 19s. 5d. $\frac{4}{10}$ Dozen.

193 Doz.

s. d.

$$\begin{array}{r|l} 18: & \frac{5}{10} \\ 1: & \frac{1}{10} \\ 4: & \frac{1}{2} \end{array} \quad \begin{array}{l} 173: 14: - \\ 9: 13: - \\ 3: 4: 4 \\ -: 16: 1 \end{array}$$

$$19: 5 \quad \pounds 187: 7: 5 \text{ Answ.}$$

517. 8703 C. at 19s. 6d. $\frac{4}{10}$ C.

s. d.

$$\begin{array}{r|l} 18: & \frac{6}{10} \\ 1: & \frac{1}{10} \\ 6: & \frac{1}{2} \end{array} \quad \begin{array}{l} 7832: 14: - \\ 652: 14: 6 \end{array}$$

$$19: 6 \quad \pounds 8485: 8: 6 \text{ Answ.}$$

* Of 18s.

See Example 211.

518. 995 Ells, at 19s. 7d. $\frac{4}{10}$ Ell.

995 Ells.

s. d.

$$\begin{array}{r|l} 16: & \frac{7}{10} \\ 3: & 4 - \frac{1}{2} \\ 3: & \frac{1}{10} \end{array} \quad \begin{array}{l} 796: -: - \\ 165: 16: 8 \\ 12: 8: 9 \end{array}$$

$$19: 7 \quad \pounds 974: 5: 5 \text{ Answ.}$$

519. 371 C. at 19s. 9d. $\frac{1}{2}$ C.

371 C.	
s. d.	
18 : —	333 : 18 : —
1 : 8	30 : 18 : 4
1 : —	1 : 10 : 11
19 : 9	£ 366 : 7 : 3

See Example 209.

520. 473 Ells. at 19s. 10d. $\frac{1}{2}$ Ell.

473 Ells.	
s. d.	
18 : —	425 : 14 : —
1 : 8	39 : 8 : 4
2 : —	3 : 18 : 10
19 : 10	£ 469 : 1 : 2

See Example 208.

521. 969 Grofs. at 19s. 11d. $\frac{1}{2}$ Grofs.

969 Grofs.	
s. d.	
18 : —	872 : 2 : —
1 : 8	80 : 15 : —
3 : —	12 : 2 : 3
19 : 11	£ 964 : 19 : 3

See Example 529.

SOME Arithmeticians make use of the following Methods of performing some of the foregoing Examples.

1. If the Price of the Integer is less than a Shilling,

R U L E.

Divide the given Quantity by the aliquot Part, or Parts of a Shilling, that are contained in the given Price, add those Quotients together, then divide their Sum by 20, will give the Answer in Pounds.

Examples.

522. 713 Yards, at $4\frac{1}{2}$ d. $\frac{1}{2}$ Yard.

713 Yds.	
d.	
4 : —	237 : 8
$\frac{1}{2}$: —	29 : $8\frac{1}{2}$
$\frac{1}{4}$: —	14 : $10\frac{1}{4}$
$4\frac{1}{2}$: —	28 : $2\frac{1}{2}$
2 : 0	£ 14 : 2 : $2\frac{1}{2}$

See Example 316.

523. 879 lb. at $5\frac{1}{2}$ d. $\frac{1}{2}$ lb.

879 lb.	
d.	
4 : —	293 : —
$\frac{1}{2}$: —	73 : 3
$\frac{1}{4}$: —	18 : $3\frac{1}{4}$
$5\frac{1}{2}$: —	38 : $4\frac{1}{2}$
2 : 0	£ 19 : 4 : $6\frac{1}{2}$

See Example 318, and 391.

524. 187 Dozen.

TICE.

Praxis on several of the foregoing Cases.

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524. 187 Dozen, at $7\frac{1}{2}d.$ $\frac{3}{4}p$ Doz.

$$\begin{array}{r}
 \text{d.} \\
 6 \text{ ---} \\
 1\frac{1}{2} \text{ ---} \\
 \frac{1}{4} \text{ ---} \\
 \hline
 7\frac{1}{2}
 \end{array}
 \begin{array}{r}
 187 \text{ Doz.} \\
 \hline
 93 : 6 \\
 23 : 4\frac{1}{2} \\
 3 : 10\frac{1}{2} \\
 \hline
 120 : 9\frac{1}{2} \\
 2 \overline{) 0} \\
 \hline
 \pounds 6 : - : 9\frac{1}{2} \text{ Answer.}
 \end{array}$$

See Example 327.

525. 173 lb. at $11\frac{1}{2}d.$ $\frac{3}{4}p$ lb.

$$\begin{array}{r}
 \text{d.} \\
 6 \text{ ---} \\
 4 \text{ ---} \\
 1\frac{1}{2} \text{ ---} \\
 \frac{1}{4} \text{ ---} \\
 \hline
 11\frac{1}{2}
 \end{array}
 \begin{array}{r}
 173 \text{ lb.} \\
 \hline
 86 : 6 \\
 57 : 8 \\
 21 : 7\frac{1}{2} \\
 3 : 7\frac{1}{2} \\
 \hline
 169 : 4\frac{1}{2} \\
 2 \overline{) 0} \\
 \hline
 \pounds 8 : 9 : 4\frac{1}{2} \text{ Answer.}
 \end{array}$$

See Example 342.

II. If the Price of the Integer is more than one Shilling and less than two Shillings,

R U L E.

Let the given Quantity stand for Shillings, divide [as before] by the Part or Parts that the Price is above one Shilling; add those Quotients together, divide their Sum by 20, the Quotient will be the Answer in Pounds.

Examples.

526. 907 Ells, at $13\frac{1}{2}d.$ $\frac{3}{4}p$ Ell.

$$\begin{array}{r}
 \text{d.} \\
 1 \text{ ---} \\
 \frac{1}{2} \text{ ---} \\
 \hline
 1\frac{1}{2}
 \end{array}
 \begin{array}{r}
 907 \text{ Ells.} \\
 \hline
 75 : 7 \\
 98 : 2 : 7 \\
 2 \overline{) 0} \\
 \hline
 \pounds 49 : 2 : 7 \text{ Answer.}
 \end{array}$$

See Example 346.

527. 175 Caps, at $1s.$ $11\frac{1}{2}d.$ each.

$$\begin{array}{r}
 \text{d.} \\
 6 \text{ ---} \\
 4 \text{ ---} \\
 1\frac{1}{2} \text{ ---} \\
 \frac{1}{4} \text{ ---} \\
 \hline
 1\frac{1}{2}
 \end{array}
 \begin{array}{r}
 175 \text{ Caps.} \\
 \hline
 87 : 6 \\
 58 : 4 \\
 21 : 10\frac{1}{2} \\
 3 : 7\frac{1}{2} \\
 \hline
 346 : 4\frac{1}{2} \\
 2 \overline{) 0} \\
 \hline
 \pounds 17 : 6 : 4\frac{1}{2} \text{ Answer.}
 \end{array}$$

See Example 382.

III. If the Price of the Integer be above two Shillings with Pence annexed,

R U L E.

Multiply the given Quantity by the Shillings, and for the Pence take Parts as before, add the Product and Quotients together and divide their Sum by 20, the Quotient will be the Answer in Pounds.

Examples

102 Contractions to several of the foregoing Examples. PRAC-

Examples.

528. 371 C. at 21. 1d. $\frac{1}{2}$ C.

$$\begin{array}{r} 371 \text{ C.} \\ 2 \\ \hline 742 \\ 30 : 11 \\ \hline 77 \overline{) 2 : 11} \\ 2 \overline{) 0} \end{array}$$

£ 38 : 12 : 11 Answer.

See Example 401.

529. 969 C. at 19s. 11d. $\frac{1}{2}$ C.

$$\begin{array}{r} 969 \text{ C.} \\ 19 \\ \hline 8721 \\ \hline \begin{array}{l} d. \\ 6 -- 969 \\ 4 -- 484 : 6 \\ 1 -- 323 : -- \\ 80 : 9 \end{array} \\ \hline 1929 \overline{) 9 : 3} \\ 2 \overline{) 0} \end{array}$$

£ 964 : 19 : 3 Answer.

See Example 511.

CONTRACTIONS to several of the foregoing Examples.

530. 791 C. at 4s. 7d. $\frac{1}{2}$ C.

$$\begin{array}{r} s. \quad d. \\ 5 : -- \frac{1}{2} \overline{) 175 : 5 : --} \quad \left. \begin{array}{l} \\ \\ \end{array} \right\} \text{Subtract} \\ 5 : -- \frac{1}{2} \overline{) 14 : 12 : 1} \\ \hline 4 : 7 \quad \text{£ } 160 : 12 : 11 \text{ Answer.} \end{array}$$

* Of 5s.

See Example 412.

531. 373 lb. at 4s. 9d. $\frac{1}{2}$ lb.

$$\begin{array}{r} s. \quad d. \\ 5 : -- \frac{1}{2} \overline{) 93 : 5 : --} \quad \left. \begin{array}{l} \\ \\ \end{array} \right\} \text{Subtract} \\ 3 : -- \frac{1}{2} \overline{) 4 : 13 : 3} \\ \hline 4 : 9 \quad \text{£ } 88 : 11 : 9 \text{ Answer.} \end{array}$$

See Example 413.

532. 871 Ells, at 4s. 10d. $\frac{1}{2}$ Ell.

$$\begin{array}{r} s. \quad d. \\ 5 : -- \frac{1}{2} \overline{) 217 : 15 : --} \quad \left. \begin{array}{l} \\ \\ \end{array} \right\} \text{Subtract} \\ 2 : -- \frac{1}{2} \overline{) 7 : 5 : 2} \\ \hline 4 : 10 \quad \text{£ } 210 : 9 : 10 \text{ Answer.} \end{array}$$

See Example 414.

533. 313 lb. at 5s. 9d. $\frac{1}{2}$ lb.

$$\begin{array}{r} s. \quad d. \\ 6 : -- \frac{1}{2} \overline{) 93 : 18 : --} \quad \left. \begin{array}{l} \\ \\ \end{array} \right\} \text{Subtract} \\ 3 : -- \frac{1}{2} \overline{) 3 : 18 : 3} \\ \hline 5 : 9 \quad \text{£ } 89 : 19 : 9 \text{ Answer.} \end{array}$$

See Example 419.

534. 713 C. at 7s. 9d. $\frac{1}{2}$ C.

$$\begin{array}{r} s. \quad d. \\ 8 : -- \frac{1}{2} \overline{) 285 : 4 : --} \quad \left. \begin{array}{l} \\ \\ \end{array} \right\} \text{Subtract} \\ 3 : -- \frac{1}{2} \overline{) 8 : 18 : 3} \\ \hline 7 : 9 \quad \text{£ } 276 : 5 : 9 \text{ Answer.} \end{array}$$

See Example 429.

535. 371 Sacks, at 7s. 10d. $\frac{1}{2}$ Sack.

$$\begin{array}{r} s. \quad d. \\ 8 : -- \frac{1}{2} \overline{) 148 : 8 : --} \quad \left. \begin{array}{l} \\ \\ \end{array} \right\} \text{Subtract} \\ 2 : -- \frac{1}{2} \overline{) 3 : 1 : 10} \\ \hline 7 : 10 \quad \text{£ } 145 : 6 : 2 \text{ Answer.} \end{array}$$

See Example 430.

536. 907 Ells,

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536. 907 Ells, at 9s. 4d. $\frac{1}{10}$ Ell.

$$\begin{array}{r} s. \quad d. \\ 10: \text{---} \frac{1}{10} \quad 453: 10: \text{---} \\ \quad \quad \quad 8 \text{---} \frac{1}{10} \quad 30: 4: 8 \end{array} \left. \vphantom{\begin{array}{r} 10: \text{---} \frac{1}{10} \\ 8 \text{---} \frac{1}{10} \end{array}} \right\} \text{Sub.}$$

$$9: 4 \quad \pounds 423: 5: 4 \text{ Anfw.}$$

See Example 265.

537. 703 lb. at 9s. 6d. $\frac{1}{10}$ lb.

$$\begin{array}{r} s. \quad d. \\ 10: \text{---} \frac{1}{10} \quad 351: 10: \text{---} \\ \quad \quad \quad 6 \text{---} \frac{1}{10} \quad 17: 11: 6 \end{array} \left. \vphantom{\begin{array}{r} 10: \text{---} \frac{1}{10} \\ 6 \text{---} \frac{1}{10} \end{array}} \right\} \text{Sub.}$$

$$9: 6 \quad \pounds 333: 18: 6 \text{ Anfw.}$$

See Example 441.

538. 173 C. at 9s. 9d. $\frac{1}{10}$ C.

$$\begin{array}{r} s. \quad d. \\ 10: \text{---} \frac{1}{10} \quad 86: 10: \text{---} \\ \quad \quad \quad 3 \text{---} \frac{1}{10} \quad 2: 3: 3 \end{array} \left. \vphantom{\begin{array}{r} 10: \text{---} \frac{1}{10} \\ 3 \text{---} \frac{1}{10} \end{array}} \right\} \text{Sub.}$$

$$9: 9 \quad \pounds 84: 6: 9 \text{ Anfw.}$$

See Example 443.

539. 371 Yards, at 9s. 10d. $\frac{1}{10}$ Yard.

$$\begin{array}{r} s. \quad d. \\ 10: \text{---} \frac{1}{10} \quad 185: 10: \text{---} \\ \quad \quad \quad 2 \text{---} \frac{1}{10} \quad 3: 1: 10 \end{array} \left. \vphantom{\begin{array}{r} 10: \text{---} \frac{1}{10} \\ 2 \text{---} \frac{1}{10} \end{array}} \right\} \text{Sub.}$$

$$9: 10 \quad \pounds 182: 8: 2 \text{ Anfw.}$$

See Example 444.

540. 387 Gallons, at 11s. 6d. $\frac{1}{10}$ Gallons.

$$\begin{array}{r} s. \quad d. \\ 12: \text{---} \frac{6}{10} \quad 232: 4: \text{---} \\ \quad \quad \quad 6 \text{---} \frac{1}{10} \quad 9: 13: 6 \end{array} \left. \vphantom{\begin{array}{r} 12: \text{---} \frac{6}{10} \\ 6 \text{---} \frac{1}{10} \end{array}} \right\} \text{Sub.}$$

$$11: 6 \quad \pounds 222: 10: 6 \text{ Anfw.}$$

See Example 456.

541. 107 Yards, at 11s. 9d. $\frac{1}{10}$ Yard.

$$\begin{array}{r} s. \quad d. \\ 12: \text{---} \frac{6}{10} \quad 64: 4: \text{---} \\ \quad \quad \quad 3 \text{---} \frac{1}{10} \quad 1: 6: 9 \end{array} \left. \vphantom{\begin{array}{r} 12: \text{---} \frac{6}{10} \\ 3 \text{---} \frac{1}{10} \end{array}} \right\} \text{Sub.}$$

$$11: 9 \quad \pounds 62: 17: 3 \text{ Anfw.}$$

See Example 458.

542. 171 C. at 11s. 10d. $\frac{1}{10}$ C.

$$\begin{array}{r} s. \quad d. \\ 12: \text{---} \frac{6}{10} \quad 102: 12: \text{---} \\ \quad \quad \quad 2 \text{---} \frac{1}{10} \quad 1: 8: 6 \end{array} \left. \vphantom{\begin{array}{r} 12: \text{---} \frac{6}{10} \\ 2 \text{---} \frac{1}{10} \end{array}} \right\} \text{Sub.}$$

$$11: 10 \quad \pounds 101: 3: 6 \text{ Anfw.}$$

See Example 459.

543. 807 Yards, at 13s. 6d. $\frac{1}{10}$ Yard.

$$\begin{array}{r} s. \quad d. \\ 14: \text{---} \frac{7}{10} \quad 564: 18: \text{---} \\ \quad \quad \quad 6 \text{---} \frac{1}{10} \quad 20: 3: 6 \end{array} \left. \vphantom{\begin{array}{r} 14: \text{---} \frac{7}{10} \\ 6 \text{---} \frac{1}{10} \end{array}} \right\} \text{Sub.}$$

$$13: 6 \quad \pounds 544: 14: 6 \text{ Anfw.}$$

See Example 471.

544. 805 Grofs,

104 Contractions to several of the foregoing Examples. PRAC.

544. 805 Gros, at 13s. 9d. $\frac{4}{10}$ Gros.

805 Gros.

$$\begin{array}{r} s. \quad d. \\ 14: - \frac{3}{10} \left| \begin{array}{l} 563 : 10 : - \\ 10 : 1 : 3 \end{array} \right\} \text{Sub.} \\ \hline 13: 9 \quad \pounds 553 : 8 : 9 \text{ Anfw.} \end{array}$$

See Example 473.

545. 137 Pair, at 13s. 10d. $\frac{4}{10}$ Pair.

137 Pair.

$$\begin{array}{r} s. \quad d. \\ 14: - \frac{3}{10} \left| \begin{array}{l} 95 : 18 : - \\ 1 : 2 : 10 \end{array} \right\} \text{Sub.} \\ \hline 13: 10 \quad \pounds 94 : 15 : 2 \text{ Anfw.} \end{array}$$

See Example 474.

546. 377 Ells, at 15s. 4d. $\frac{4}{10}$ Ell.

377 Ells.

$$\begin{array}{r} s. \quad d. \\ 16: - \frac{3}{10} \left| \begin{array}{l} 301 : 12 : - \\ 12 : 11 : 4 \end{array} \right\} \text{Sub.} \\ \hline 15: 4 \quad \pounds 289 : - : 8 \text{ Anfw.} \end{array}$$

See Example 286.

547. 101 Ells, at 15s. 6d. $\frac{4}{10}$ Ell.

101 Ells.

$$\begin{array}{r} s. \quad d. \\ 16: - \frac{3}{10} \left| \begin{array}{l} 80 : 16 : - \\ 2 : 10 : 6 \end{array} \right\} \text{Sub.} \\ \hline 15: 6 \quad \pounds 78 : 5 : 6 \text{ Anfw.} \end{array}$$

See Example 486.

548. 709 Quarters, at 15s. 9d. $\frac{4}{10}$ Quarter.

709 Quar.

$$\begin{array}{r} s. \quad d. \\ 16: - \frac{3}{10} \left| \begin{array}{l} 567 : 4 : - \\ 8 : 17 : 3 \end{array} \right\} \text{Sub.} \\ \hline 15: 9 \quad \pounds 558 : 6 : 9 \text{ Anfw.} \end{array}$$

See Example 488.

549. 713 Ells, at 15s. 10d. $\frac{4}{10}$ Ell.

713 Ells.

$$\begin{array}{r} s. \quad d. \\ 16: - \frac{3}{10} \left| \begin{array}{l} 570 : 8 : - \\ 5 : 18 : 10 \end{array} \right\} \text{Sub.} \\ \hline 15: 10 \quad \pounds 564 : 9 : 2 \text{ Anfw.} \end{array}$$

See Example 489.

550. 713 C. at 17s. 9d. $\frac{4}{10}$ C.

713 C.

$$\begin{array}{r} s. \quad d. \\ 18: - \frac{3}{10} \left| \begin{array}{l} 641 : 14 : - \\ 8 : 18 : 3 \end{array} \right\} \text{Sub.} \\ \hline 17: 9 \quad \pounds 632 : 15 : 9 \text{ Anfw.} \end{array}$$

See Example 503.

551. 307 lb. at 17s. 10d. $\frac{4}{10}$ lb.

307 lb.

$$\begin{array}{r} s. \quad d. \\ 18: - \frac{3}{10} \left| \begin{array}{l} 276 : 6 : - \\ 2 : 11 : 2 \end{array} \right\} \text{Sub.} \\ \hline 17: 10 \quad \pounds 273 : 14 : 10 \text{ Anfw.} \end{array}$$

See Example 504.

Examples

*Examples for the Learner's Exercise.**Answer.*

What cost 873 C. at 2s. 1d. per C. ?	_____	£ 90 : 18 : 9
What cost 917 Yards, at 2s. 5d. per Yard ?	_____	110 : 16 : 1
At 2s. 7d. per Ell, what cost 171 Ells ?	_____	22 : 1 : 9
At 2s. 11d. per lb. what cost 173 lb. ?	_____	25 : 4 : 7
If 1 C. cost 3s. 1d. what cost 971 C. ?	_____	149 : 13 : 11
What cost 973 Feet, at 3s. 3d. per Foot ?	_____	158 : 2 : 3
What cost 107 Bushels, at 3s. 5d. per Bushel ?	_____	18 : 5 : 7
At 3s. 9d. per Yard, what cost 979 Yards ?	_____	183 : 11 : 3
At 3s. 11d. per Dozen, what cost 111 Dozen ?	_____	21 : 14 : 9
What cost 177 Loads, at 4s. 1d. per Load ?	_____	36 : 2 : 9
At 4s. 5d. per Thousand, what cost 871 Thousands ?	_____	192 : 6 : 11
At 4s. 7d. per C. what cost 705 C. ?	_____	162 : 11 : 3
At 4s. 9d. per Yard, what cost 175 Yards ?	_____	41 : 11 : 3
At 4s. 10d. per Ell, what cost 917 Ells ?	_____	221 : 12 : 2
At 4s. 11d. per C. what cost 831 C. ?	_____	204 : 5 : 9
What cost 109 Dozen, at 5s. 1d. per Dozen ?	_____	27 : 14 : 1
What cost 907 Grofs, at 5s. 7d. per Grofs ?	_____	253 : 4 : 1
At 5s. 9d. per Yard, what cost 917 Yards ?	_____	263 : 12 : 9
At 5s. 11d. per C. what cost 173 C. ?	_____	51 : 3 : 7
At 6s. 1d. per Yard, what cost 871 Yards ?	_____	264 : 18 : 7
At 6s. 5d. per Ell, what cost 909 Ells ?	_____	291 : 12 : 9
At 6s. 7d. per Grofs, what cost 871 Grofs ?	_____	286 : 14 : 1
At 6s. 9d. per Dozen, what cost 173 Dozen ?	_____	58 : 7 : 9
What cost 937 lb. at 7s. 1d. per lb. ?	_____	331 : 17 : 1
What cost 139 C. at 7s. 3d. per C. ?	_____	50 : 7 : 9
What cost 931 Pair, at 7s. 5d. per Pair ?	_____	345 : 4 : 11
What cost 117 Ells, at 7s. 7d. per Ell ?	_____	44 : 7 : 3
What cost 130 Grofs, at 7s. 9d. per Grofs ?	_____	50 : 7 : 6
If 1 Bushel cost 7s. 10d. what cost 177 Bushels ?	_____	69 : 6 : 6
If 1 Yard cost 7s. 11d. what cost 871 Yards ?	_____	344 : 15 : 5
If 1 Barrel cost 8s. 1d. what cost 117 Barrels ?	_____	47 : 5 : 9
What cost 717 Gallons, at 8s. 5d. per Gallon ?	_____	301 : 14 : 9
What cost 971 Gallons, at 8s. 7d. per Gallon ?	_____	416 : 14 : 5
At 8s. 9d. per Barrel, what cost 371 Barrels ?	_____	162 : 6 : 3
If 1 Ounce cost 8s. 10d. what cost 939 Ounces ?	_____	414 : 14 : 16
At 8s. 11d. per Yard, what cost 917 Yards ?	_____	408 : 16 : 7
At 9s. 1d. per C. what cost 873 C. ?	_____	396 : 9 : 9
At 9s. 3d. per Ell, what cost 117 Ells ?	_____	54 : 2 : 13
At 9s. 5d. per Dozen, what cost 711 Dozen ?	_____	334 : 15 : 3

Answer.

At 9s. 6d. per Gros, what cost 931 Gros?	—	£ 442 : 4 : 6
What cost 137 C. at 9s. 7d. per C.?	—	65 : 12 : 11
At 9s. 9d. per Ell, what cost 913 Ells?	—	445 : 1 : 9
What cost 137 lb. at 9s. 10d. per lb.?	—	67 : 7 : 2
If 1 Yard cost 9s. 11d. what cost 131 Yards?	—	64 : 19 : 1
What 171 C. at 10s. 1d. per C.?	—	86 : 4 : 3
At 10s. 5d. per Dozen, what cost 309 Dozen?	—	160 : 18 : 9
At 10s. 7d. per Gros, what cost 107 Gros?	—	56 : 12 : 5
At 10s. 9d. per Pair, what cost 917 Pair?	—	492 : 17 : 9
At 10s. 10d. per lb. what cost 913 lb.?	—	494 : 10 : 10
At 10s. 11d. per Ell, what cost 157 Ells?	—	85 : 13 : 11
At 11s. 1d. per Yard, what cost 137 Yards?	—	75 : 18 : 5
At 11s. 2d. per C. what cost 131 C.?	—	73 : 2 : 10
What cost 137 C. at 11s. 3d. per C.?	—	77 : 1 : 3
At 11s. 5d. per Yard, what cost 917 Yards?	—	523 : 9 : 1
At 11s. 6d. per Ell, what cost 137 Ells?	—	78 : 15 : 6
At 11s. 7d. per Gallon, what cost 131 Gallons?	—	75 : 17 : 5
At 11s. 9d. per C. what cost 913 C.?	—	536 : 7 : 9
If 1 C. cost 11s. 10d. what cost 173 C.?	—	102 : 7 : 2
At 11s. 11d. per Yard, what cost 837 Yards?	—	498 : 14 : 3
What cost 313 Dozen, at 12s. 1d. per Dozen?	—	189 : 2 : 1
At 12s. 5d. per Gros, what cost 137 Gros?	—	85 : 1 : 1
At 12s. 7d. per Gros, what cost 131 Gros?	—	82 : 8 : 5
What cost 171 Quarters, at 12s. 9d. per Quarter?	—	109 : — : 3
What cost 309 lb. at 12s. 10d. per lb.?	—	198 : 5 : 6
At 12s. 11d. per C. what cost 735 C.?	—	474 : 13 : 9
At 13s. 11d. per Ounce, what cost 917 Ounces?	—	638 : 1 : 7
At 14s. 1d. per C. what cost 732 C.?	—	515 : 9 : —
At 14s. 5d. per C. what cost 276 C.?	—	198 : 19 : —
At 14s. 7d. per Gros, what cost 171 Gros?	—	124 : 13 : 9
What cost 503 Dozen, at 14s. 9d. per Dozen?	—	665 : 19 : 3
If 1 Pair cost 14s. 10d. what cost 171 Pair?	—	126 : 16 : 6
What cost 937 Ells, at 14s. 11d. per Ell?	—	698 : 16 : 11
At 15s. 1d. per lb. what cost 179 lb.?	—	134 : 19 : 11
At 15s. 2d. per Dozen, what cost 917 Dozen?	—	695 : 7 : 10
At 15s. 3d. per C. what cost 317 C.?	—	241 : 14 : 3
What cost 175 Ells, at 15s. 5d. per Ell?	—	134 : 17 : 11
If 1 Yard cost 15s. 6d. what cost 171 Yards?	—	132 : 10 : 6
At 15s. 7d. per Gros, what cost 131 Gros?	—	102 : 1 : 5
At 15s. 9d. per Quarter, what cost 917 Quarters?	—	722 : 2 : 9
At 15s. 10d. per C. what cost 931 C.?	—	737 : — : 10

At

Answer.

At 15s. 11d. per Ell, what cost 137 Ells?	—	£	109	: —	: 7
What cost 133 Yards, at 16s. 1d. per Yard?	—		106	: 19	: 1
What cost 937 Ells, at 16s. 5d. per Ell?	—		769	: 2	: 5
What cost 371 C. at 16s. 7d. per C.?	—		307	: 12	: 5
What cost 741 Grofs, at 16s. 9d. per Grofs?	—		620	: 11	: 9
What cost 147 C. at 16s. 10d. per C.?	—		123	: 14	: 6
At 16s. 11d. per Yard, what cost 913 Yards?	—		772	: 4	: 11
If 1 Ell cost 17s. 1d. what cost 171 Ells?	—		146	: 1	: 3
At 17s. 2d. per Thousand, what cost 971 Thousands?	—		833	: 8	: 10
At 17s. 3d. per C. what cost 901 C.?	—		777	: 2	: 3
At 17s. 4d. per Ton, what cost 131 Tons?	—		113	: 10	: 8
At 17s. 5d. per C. what cost 909 C.?	—		791	: 11	: 9
At 17s. 7d. per Ton, what cost 147 Tons?	—		129	: 4	: 9
What cost 137 Yards, at 17s. 9d. per Yard?	—		121	: 11	: 9
What cost 373 C. at 17s. 10d. per C.?	—		332	: 11	: 10
At 17s. 11d. per Yard, what cost 871 Yards?	—		780	: 5	: 5
At 18s. 1d. per C. what cost 173 C.?	—		156	: 8	: 5
If 1 Grofs cost 18s. 5d. what cost 131 Grofs?	—		120	: 12	: 7
What cost 907 Loads, at 18s. 7d. per Load?	—		842	: 15	: 1
At 18s. 9d. per C. what cost 979 C.?	—		917	: 16	: 3
At 18s. 10d. per Grofs, what cost 137 Grofs?	—		129	: —	: 2
What cost 731 C. at 18s. 11d. per C.?	—		691	: 8	: 1
At 19s. 1d. per Yard, what cost 917 Yards?	—		874	: 19	: 5
What cost 371 Dozen, at 19s. 2d. per Dozen?	—		355	: 10	: 10
At 19s. 3d. per C. what cost 117 C.?	—		112	: 12	: 3
What cost 317 Grofs, at 19s. 5d. per Grofs?	—		307	: 15	: 1
At 19s. 6d. per C. what cost 139 C.?	—		138	: 10	: 6
At 19s. 7d. per Ell, what cost 107 Ells?	—		104	: 15	: 5
What cost 171 C. at 19s. 9d. per C.?	—		168	: 17	: 3
At 19s. 10d. per C. what cost 873 C.?	—		865	: 14	: 6
If 1 Thousand cost 19s. 11d. what cost 17381 Thousands?	—		17308	: 11	: 7



CASE

C A S E XII.

WHEN the Price of the Integer is Pounds,

R U L E.

Multiply the given Quantity by the Price, the Product will be the Answer in Pounds.

Examples.

552. 471 C. at 5*l.* ⌘ C.

$$\begin{array}{r} 5 \\ \hline \text{£ } 2355 \text{ Answer.} \end{array}$$

553. 371 Yards, at 8*l.* ⌘ Yard.

$$\begin{array}{r} 371 \text{ Yds.} \\ 8 \\ \hline \text{£ } 2968 \text{ Answer.} \end{array}$$

556. 131 C. at 17*l.* ⌘ C.

$$\begin{array}{r} 17 \\ \hline 917 \\ 131 \\ \hline 2227 \text{ Answer.} \end{array}$$

554. 713 Loads, at 25*l.* ⌘ Load.

$$\begin{array}{r} 713 \text{ Loads.} \\ 5 \\ \hline 3565 \\ 5 \\ \hline \text{£ } 17825 \text{ Answer.} \end{array}$$

555. 171 C. at 20*l.* ⌘ C.

$$\begin{array}{r} 20 \\ \hline \text{£ } 3420 \text{ Answer.} \end{array}$$

O R,

131 C. at 17*l.* ⌘ C.

$$\begin{array}{r} 17 \\ \hline 2227 \text{ Answer.} \end{array}$$

Examples for the Learner's Exercise.

What cost 719 C. at 4*l.* ⌘ C.?At 9*l.* ⌘ Ell, what cost 137 Ells?If 1 Dozen cost 19*l.* what cost 913 Dozen?What cost 817 Tons, at 27*l.* ⌘ Ton?

Answer.

£ 2876

1233

17347

22059

C A S E XIII.

WHEN the Price of the Integer is Pounds and Shillings.

R U L E.

Multiply the given Quantity by the Pounds [as in the preceding Case] then proceed with the Shillings, as in the foregoing Cases, add the Product

TICE.

Case XIII. 109

duft and Quotients together, their Sum will be the Answer in Pounds,
 &c.

Examples.

557. 47¹ C. at 5^l. 8^s. $\frac{4}{10}$ C.47¹ C.

5

$$\begin{array}{r} s. \\ 8 \text{ -- } \frac{4}{10} \end{array} \left| \begin{array}{r} 2355 \\ 188 : 8 \end{array} \right.$$

£ 2543 : 8 Answer.

558. 913 Dozen, at 19^l. 17^s. $\frac{4}{10}$ Dozen.

913 Doz.

19

$$\begin{array}{r} s. \\ 16 \text{ -- } \frac{8}{10} \\ 1 \text{ -- } \frac{1}{10} \end{array} \left| \begin{array}{r} 8217 \\ 913 \\ 730 : 8 \\ 45 : 13 \end{array} \right.$$

£ 18123 : 1 Answer.

559. 173 Tons, at 19^l. 18^s. $\frac{4}{10}$ Ton.

173 Tons.

19

$$\begin{array}{r} s. \\ 18 \text{ -- } \frac{4}{10} \end{array} \left| \begin{array}{r} 1557 \\ 173 \\ 155 : 14 \end{array} \right.$$

£ 3442 : 14 Answer.

See Example 561.

560. 875 Tickets, at 19^l. 19^s. each.

875 Tick.

19

$$\begin{array}{r} s. \\ 18 \text{ -- } \frac{9}{10} \\ 1 \text{ -- } \frac{1}{10} \end{array} \left| \begin{array}{r} 7875 \\ 875 \\ 787 : 10 \\ 43 : 15 \end{array} \right.$$

£ 17456 : 5 Answer.

See Example 562.

CONTRACTIONS to Case XIII.

561. 173 Tons, at 19^l. 18^s. $\frac{4}{10}$ Ton.

173 Tons.

20

$$\begin{array}{r} s. \\ 2 \text{ -- } \frac{1}{10} \end{array} \left| \begin{array}{r} 3460 \\ 17 : 6 \end{array} \right. \left. \begin{array}{l} \\ \end{array} \right\} \text{Subtract.}$$

£ 3442 : 14 Answer.

See Example 559.

562. 875 Tickets, at 19^l. 19^s. each.

875 Tick.

20

$$\begin{array}{r} s. \\ 1 \text{ -- } \frac{1}{10} \end{array} \left| \begin{array}{r} 17500 \\ 43 : 15 \end{array} \right. \left. \begin{array}{l} \\ \end{array} \right\} \text{Subtract.}$$

£ 17456 : 5 Answer.

See Example 560.

Examples

Examples for the Learner's Exercise.

What cost 721 Yards, at 2 <i>l</i> . 18 <i>s</i> . 4 <i>d</i> Yard?	—	<i>Answer.</i> £ 2090 : 18
At 3 <i>l</i> . 17 <i>s</i> . 4 <i>d</i> Ell, what cost 379 Ells?	—	1459 : 3
If 1 C. cost 7 <i>l</i> . 12 <i>s</i> . what cost 701 C.?	—	5327 : 12
At 17 <i>l</i> . 15 <i>s</i> . 4 <i>d</i> Ton, what cost 791 Tons?	—	14040 : 5
What cost 371 Hogheads, at 15 <i>l</i> . 15 <i>s</i> . 4 <i>d</i> Hoghead?	—	5843 : 5
What cost 713 Grofs, at 19 <i>l</i> . 19 <i>s</i> . 4 <i>d</i> Grofs?	—	14224 : 7

C A S E XIV.

WHEN the Price of the Integer is Pounds, Shillings, and Pence.

I. If the given Shillings and Pence are an aliquot Part of a Pound,
R U L E.

Multiply the given Quantity by the Pounds as in Case XII, proceed with the Shillings and Pence as in Cases II, and III, add the Product and Quotient together, their Sum will be the Answer in Pounds, &c.

Examples.

563. 171 C. at £ 1 : — : 2 *d* C.

$$\begin{array}{r} d. \quad 171 \text{ C.} \\ 2 \text{ -- } \frac{1}{120} \quad 1 : 8 : 6 \\ \hline \end{array}$$
 £ 172 : 8 : 6 *Answer.*

564. 873 Yards, at £ 10 : — : 3 *d* Yard.
 873 Yds.
 10

$$\begin{array}{r} d. \quad 8730 \\ 3 \text{ -- } \frac{1}{120} \quad 10 : 18 : 3 \\ \hline \end{array}$$
 £ 8740 : 18 : 3 *Answer.*

565. 971 Tons, at £ 4 : — : 4 *d* Ton.
 971 Tons
 4

$$\begin{array}{r} d. \quad 3884 \\ 4 \text{ -- } \frac{1}{20} \quad 16 : 3 : 8 \\ \hline \end{array}$$
 £ 3900 : 3 : 8 *Answer.*

566. 171 Men, at £ 7 : — : 6 each.
 171 Men.
 7

$$\begin{array}{r} d. \quad 1197 \\ 6 \text{ -- } \frac{1}{20} \quad 4 : 5 : 6 \\ \hline \end{array}$$
 £ 1201 : 5 : 6 *Answer.*

567. 837 lb. at £ 5 : — : 8 *d* lb.
 837 lb.

$$\begin{array}{r} d. \quad 4185 \\ 8 \text{ -- } \frac{1}{120} \quad 27 : 18 \\ \hline \end{array}$$
 £ 4212 : 18 *Answer.*

568. 149 C. at £ 7 : 1 : 8 *d* C.
 149 C.
 7

$$\begin{array}{r} s. \quad d. \quad 1043 \\ 1 : 8 \text{ -- } \frac{1}{12} \quad 12 : 8 : 4 \\ \hline \end{array}$$
 £ 1055 : 8 : 4 *Answer.*

569. 871 Dozen,

TICE.

Case XIV. 111

569. 871 Dozen, at £ 19 : 2 : 6
 $\frac{1}{2}$ Dozen.

871 Doz.
 19

$\begin{array}{r} 7839 \\ 871 : \\ \hline 2 : 6 \dots \frac{1}{2} \end{array}$
 108 : 17 : 6

£ 16657 : 17 : 6 Answer.

570. 107 Gross, at £ 3 : 3 : 4
 $\frac{1}{2}$ Gross.

107 Gross.
 3

$\begin{array}{r} 321 \\ 3 : 4 \dots \frac{1}{2} \end{array}$
 17 : 16 : 8

£ 338 : 16 : 8 Answer.

571. 107 Rods, at £ 6 : 6 : 8 $\frac{1}{2}$ Rod.

107 Rods.
 6

$\begin{array}{r} 642 \\ 6 : 8 \dots \frac{1}{2} \end{array}$
 35 : 13 : 4

£ 677 : 13 : 4 Answer.

Examples for the Learner's Exercise.

Answer.

- What cost 817 Ounces, at £ 4 : — : 2 $\frac{1}{2}$ Ounce? £ 3275 : 12 : 10
 What cost 173 Anchors, at £ 3 : — : 3 $\frac{1}{2}$ Anchor? — 521 : 3 : 3
 If 1 Yard cost £ 1 : — : 4, what cost 137 Yards? — 139 : 5 : 8
 At £ 2 : — : 6 $\frac{1}{2}$ Dozen, what cost 317 Dozen? 641 : 18 : 6
 At £ 17 : — : 8 $\frac{1}{2}$ Gross, what cost 931 Gross? 15858 : — : 8
 At £ 5 : 1 : 8 $\frac{1}{2}$ Ell, what cost 171 Ells? — 869 : 5 : —
 At £ 2 : 2 : 6 $\frac{1}{2}$ Yard, what cost 907 Yards? — 1927 : 7 : 6
 At £ 3 : 3 : 4 $\frac{1}{2}$ C. what cost 173 C.? — 547 : 16 : 8
 At £ 1 : 6 : 8 $\frac{1}{2}$ Ell, what cost 913 Ells? — 1217 : 6 : 8

II. IF the given *Shillings and Pence* are not an *aliquot Part* of a Pound,

R U L E.

Multiply the given Quantity by the Pounds as in Case XII, then proceed with the Shillings and Pence as before.

Examples.

Examples.

572. 801 Yards, at £ 2 : 19 : 1
 Ⓕ Yard.

801 Yds.

2

$$\begin{array}{r} s. \quad d. \\ 18 : - \quad \frac{7}{10} \quad 1602 \\ 1 : - \quad \frac{1}{10} \quad 720 : 18 : - \\ 1 : - \quad \frac{1}{10} \quad 40 : 1 : - \\ 1 : - \quad \frac{1}{10} \quad 3 : 6 : 9 \end{array}$$

£ 2366 : 5 : 9 Answer.

See Example 576.

573. 58361 Hogheads, at
 £ 48 : 12 : 9 each.

58361 Hogf.

48

$$\begin{array}{r} s. \quad d. \\ 12 : - \quad \frac{6}{10} \quad 466888 \\ 6 : - \quad \frac{1}{10} \quad 233444 \\ 3 : - \quad \frac{1}{10} \quad 35016 : 12 : - \\ 3 : - \quad \frac{1}{10} \quad 1459 : - : 6 \\ 3 : - \quad \frac{1}{10} \quad 729 : 10 : 3 \end{array}$$

Answer. £ 2838533 : 2 : 9

574. 3287 Yards, at £ 2 : 14 : 11
 Ⓕ Yard.

3287 Yds.

2

$$\begin{array}{r} s. \quad d. \\ 14 : - \quad \frac{7}{10} \quad 6574 \\ 8 : - \quad \frac{1}{10} \quad 2300 : 18 : - \\ 3 : - \quad \frac{1}{10} \quad 109 : 11 : 4 \\ 3 : - \quad \frac{1}{10} \quad 41 : 1 : 9 \end{array}$$

£ 9025 : 11 : 1 Ans.

See Example 577.

575. 137 Tons, at £ 15 : 19 : 11
 Ⓕ Ton.

137 Tons.

5

685

3

$$\begin{array}{r} s. \quad d. \\ 18 : - \quad \frac{9}{10} \quad 2055 \\ 1 : 8 : - \quad \frac{1}{10} \quad 123 : 6 : - \\ 3 : - \quad \frac{1}{10} \quad 11 : 8 : 4 \\ 3 : - \quad \frac{1}{10} \quad 1 : 14 : 3 \end{array}$$

£ 2191 : 8 : 7 Ans.

SOME chuse rather to multiply the Quantity by the Price reduced into Shillings, and take Parts for the Pence, the Sum of the Product and Quotients will be the Answer in Shillings, &c. divide the Shillings by 20, the Quotients will be Pounds.

Examples.

576. 801 Yards, at £ 2 : 19 : 1
 Ⓕ Yard.

801 Yds.

59

59

$$\begin{array}{r} d. \\ 1 : - \quad \frac{1}{10} \quad 7209 \\ 1 : - \quad \frac{1}{10} \quad 4005 \\ 1 : - \quad \frac{1}{10} \quad 66 : 9 \end{array}$$

$$\begin{array}{r} s. \quad 4732 \overline{) 5 : 9} \\ 2 \quad \underline{0} \end{array}$$

£ 2366 : 5 : 9 Answer.

See Example 572.

577. 3287 Yards, at £ 2 : 14 : 11
 Ⓕ Yard.

3287 Yds.

54

54

$$\begin{array}{r} d. \\ 6 : - \quad \frac{1}{10} \quad 13148 \\ 4 : - \quad \frac{1}{10} \quad 16435 \\ 1 : - \quad \frac{1}{10} \quad 1643 : 6 \\ 4 : - \quad \frac{1}{10} \quad 1095 : 8 \\ 1 : - \quad \frac{1}{10} \quad 273 : 11 \end{array}$$

$$\begin{array}{r} s. \quad 18051 \overline{) 4 : 1} \\ 2 \quad \underline{0} \end{array}$$

£ 9025 : 11 : 1 Answer.

See Example 574.

The above Method may serve to prove the foregoing Examples.

Example

Examples for the Learner's Exercise.

Answer.

- What cost 917 C. at £ 1 : 17 : 5 $\frac{1}{4}$ C.? — £ 1715 : 11 : 1
 At £ 5 : 1 : 5 $\frac{1}{4}$ Yard, what cost 171 Yards? — 867 : 2 : 3
 If 1 Ell cost £ 2 : 17 : 11, what cost 917 Ells? — 2655 : 9 : 7
 What cost 173 Loads, at £ 2 : 15 : 5 each? — 479 : 7 : 1

C A S E X V.

WHEN the Price of the Integer is Pounds, Shillings, Pence, and Farthings,

R U L E.

Proceed with the Pounds, Shillings, Pence, and Farthings, as in the foregoing Cases.

Examples.

578. 137 Yards, at £ 1 : 17 : 6 $\frac{1}{4}$
 $\frac{1}{4}$ Yard.

s. d.	137 Yds.	
14 : —	95 : 18 : —	
3 : 4	22 : 16 : 8	
2 : —	1 : 2 : 10	
— : —	— : 2 : 10 $\frac{1}{4}$	
£ 257 : — : 4 $\frac{1}{4}$ Ans.		

580. 2710 Yards, at £ 2 : 3 : 7 $\frac{1}{2}$
 $\frac{1}{4}$ Yard.

		2710 Yds.
		2
s. d.	5420	
3 : 4	451 : 13 : 4	
3 : —	33 : 17 : 6	
— : —	5 : 12 : 11	
£ 5911 : 3 : 9 Ans.		

579. 947 C. at £ 4 : 15 : 10 $\frac{1}{2}$
 $\frac{1}{4}$ C.

		947 C.
		4
s. d.	3788	
14 : —	662 : 18 : —	
1 : 8	78 : 18 : 4	
2 : —	7 : 17 : 10	
— : —	— : 19 : 8 $\frac{1}{4}$	
£ 4538 : 13 : 10 $\frac{1}{4}$ Ans.		

581. 457 Tons, at £ 14 : 17 : 9 $\frac{1}{2}$
 $\frac{1}{4}$ Ton.

		457 Tons.
		7
		3199
		2
s. d.	6398	
14 : —	319 : 18 : —	
3 : 4	76 : 3 : 4	
5 : —	9 : 10 : 5	
— : —	— : 19 : — $\frac{1}{2}$	
£ 6804 : 10 : 9 $\frac{1}{2}$ Ans.		
		582. 927 C.

582. 927 C. at £ 3 : 18 : 11½ d C.

927 C.

s.	d.	
16	—	2781
1	—	741 : 12 : —
1	—	46 : 7 : —
1	—	46 : 7 : —
1	—	5 : 15 : 10½
1	—	— : 19 : 3½

£ 3622 : 1 : 2½ Ans.

583. 713 Hogheads, at
£ 19 : 19 : 11½ each.

713 Hogh.

19

s.	d.	
18	—	6417
1	—	713
1	—	641 : 14 : —
1	—	59 : 8 : 4
1	—	8 : 18 : 3
1	—	2 : 4 : 6½

£ 14259 : 5 : 1½ Ans.

See Example 586.

CONTRACTION of Example 583.

586. 713 Hogheads, at £ 19 : 19 : 11½ each.

20

14260	} Subtract.
: 14 : 10½	
£ 14259 : 5 : 1½	Answer.

584. 741 C. at £ 2 : 13 : 7½ d C.

741 C.

2

s.	d.	
13	4	1482
3	—	494 : — : —
3	—	9 : 5 : 3
3	—	— : 15 : 5½

£ 1986 : — : 8½ Ans.

* Of 2l.

585. 375 Yards, at £ 3 : 7 : 11½ d Yard.

375 Yds.

3

s.	d.	
7	6	1125
4	—	140 : 12 : 6
1	—	6 : 5 : —
1	—	1 : 11 : 3
1	—	— : 7 : 9½

£ 1273 : 16 : 6½ Ans.

* Of 3l.

Fartbing.

713

4

178½

12

3, 14:10½

By Reduc-
tion, or
Example
392.

Examples for the Learner's Exercise.

- What cost 827 Yards, at £ 3 : 16 : 11½ d Yard? £ 3181 : 7 : 3½
At £ 4 : 8 : 7½ d C. what cost 901 C.? — 3993 : 9 : 10½
If 1 Ell cost £ 2 : 17 : 5½, what cost 197 Ells? — 565 : 15 : 2½
At £ 5 : 6 : 10½ d C. what cost 197 C.? — 1052 : 14 : 4½
What cost 147 Yards, at £ 8 : 19 : 5½ d Yard? 1319 : 3 : 5½
What cost 197 Grofs, at £ 2 : 19 : 11½ d Grofs? 590 : 15 : 10½
What cost 471 Ells, at £ 2 : 13 : 9½ d Ell? — 1266 : 6 : —
At £ 3 : 7 : 8½ d C. what cost 917 C.? — 3103 : 9 : 5½

Answer.

PRAXIS

PRAXIS on several of the foregoing Cases.

587. 713 C. at £ 19 : 19 : 10

C.

713 C.

20

$$\begin{array}{r} d. \quad 14260 : - : - \\ 2 \dots \frac{1}{10} \quad 5 : 18 : 10 \end{array} \left. \vphantom{\begin{array}{r} d. \quad 14260 : - : - \\ 2 \dots \frac{1}{10} \quad 5 : 18 : 10 \end{array}} \right\} \text{Sub.}$$

£ 14254 : 1 : 2 Answer.

588. 817 Yards, at £ 17 : 19 : 9½

Yard.

817 Yds.

3

2451
6

$$\begin{array}{r} d. \quad 14706 : - : - \\ 3 \dots \frac{1}{10} \quad 10 : 4 : 3 \end{array} \left. \vphantom{\begin{array}{r} d. \quad 14706 : - : - \\ 3 \dots \frac{1}{10} \quad 10 : 4 : 3 \end{array}} \right\} \text{Sub.}$$

$$\begin{array}{r} \frac{1}{2} \dots \frac{1}{2} \quad 14695 : 15 : 9 \\ \quad \quad \quad 2 : 11 : - \frac{1}{2} \end{array} \left. \vphantom{\begin{array}{r} \frac{1}{2} \dots \frac{1}{2} \quad 14695 : 15 : 9 \\ \quad \quad \quad 2 : 11 : - \frac{1}{2} \end{array}} \right\} \text{Add.}$$

£ 14698 : 6 : 9½ Answer.

589. 843 Tons, at £ 3 : 19 : 8

Ton.

843 Tons.

4

$$\begin{array}{r} d. \quad 3372 \\ 4 \dots \frac{1}{10} \quad 14 : 1 \end{array} \left. \vphantom{\begin{array}{r} d. \quad 3372 \\ 4 \dots \frac{1}{10} \quad 14 : 1 \end{array}} \right\} \text{Subtract.}$$

£ 3357 : 19 Answer.

590. 719 Ells, at £ 3 : 19 : 6

Ell.

719 Ells.

4

$$\begin{array}{r} d. \quad 2876 \\ 6 \dots \frac{1}{10} \quad 17 : 19 : 6 \end{array} \left. \vphantom{\begin{array}{r} d. \quad 2876 \\ 6 \dots \frac{1}{10} \quad 17 : 19 : 6 \end{array}} \right\} \text{Subtract.}$$

£ 2858 : - : 6 Answer.

591. 303 Yards, at £ 1 : 19 : 4

Yard.

303 Yds.

2

$$\begin{array}{r} d. \quad 606 \\ 8 \dots \frac{1}{10} \quad 10 : 2 \end{array} \left. \vphantom{\begin{array}{r} d. \quad 606 \\ 8 \dots \frac{1}{10} \quad 10 : 2 \end{array}} \right\} \text{Subtract.}$$

£ 595 : 18 Answer.

592. 701 Yards, at £ 2 : 19

Yard.

701 Yds.

3

$$\begin{array}{r} s. \quad 2103 \\ 1 \dots \frac{1}{10} \quad 35 : 1 \end{array} \left. \vphantom{\begin{array}{r} s. \quad 2103 \\ 1 \dots \frac{1}{10} \quad 35 : 1 \end{array}} \right\} \text{Subtract.}$$

£ 2067 : 19 Answer.

593. 919 Dozen, at £ 9 : 18 : 4

Dozen.

919 Doz.

10

$$\begin{array}{r} s. \quad d. \quad 9190 : - : - \\ 1 : 8 \dots \frac{1}{10} \quad 76 : 11 : 8 \end{array} \left. \vphantom{\begin{array}{r} s. \quad d. \quad 9190 : - : - \\ 1 : 8 \dots \frac{1}{10} \quad 76 : 11 : 8 \end{array}} \right\} \text{Sub.}$$

£ 9113 : 8 : 4 Answer.

594. 317 Grofs, at £ 19 : 18

Grofs.

317 Grofs.

20

$$\begin{array}{r} s. \quad 6340 : - : - \\ 2 \dots \frac{1}{10} \quad 31 : 14 \end{array} \left. \vphantom{\begin{array}{r} s. \quad 6340 : - : - \\ 2 \dots \frac{1}{10} \quad 31 : 14 \end{array}} \right\} \text{Subtract.}$$

£ 6308 : 6 Answer.

595. 937 Grofs,

595. 937 Gros, at £ 4 : 17 : 6
 Ⓕ Gros.

937 Gros.

5

$$\begin{array}{r} s. \ d. \\ 2 : 6 \text{ --- } \frac{1}{8} \end{array} \left\{ \begin{array}{l} 4685 : - : - \\ 117 : 2 : 6 \end{array} \right\} \text{Sub.}$$

£ 4567 : 17 : 6 Answer.

596. 917 Dozen, at £ 7 : 16 : 8
 Ⓕ Dozen.

917 Doz.

8

$$\begin{array}{r} s. \ d. \\ 3 : 4 \text{ --- } \frac{1}{8} \end{array} \left\{ \begin{array}{l} 7336 : - : - \\ 152 : 16 : 8 \end{array} \right\} \text{Sub.}$$

£ 7183 : 3 : 4 Answer.

597. 713 Tickets, at £ 19 : 16
 each.

713 Tick.

20

$$\begin{array}{r} s. \\ 4 \text{ --- } \frac{1}{4} \end{array} \left\{ \begin{array}{l} 14260 : - \\ 142 : 12 \end{array} \right\} \text{Subtract.}$$

£ 14117 : 8 Answer.

598. 379 Gros, at £ 1 : 15 Ⓕ
 Gros.

379 Gros.

2

$$\begin{array}{r} s. \\ 5 \text{ --- } \frac{1}{2} \end{array} \left\{ \begin{array}{l} 758 : - \\ 94 : 15 \end{array} \right\} \text{Subtract.}$$

£ 663 : 5 Answer.

599. 715 Tons, at £ 17 : 14 Ⓕ
 Ton.

715 Tons.

3

2145
6

$$\begin{array}{r} s. \\ 6 \text{ --- } \frac{1}{10} \end{array} \left\{ \begin{array}{l} 2870 : - \\ 214 : 10 \end{array} \right\} \text{Subtract.}$$

£ 2655 : 10 Answer.

600. 907 C. at £ 1 : 13 : 4 Ⓕ
 C.

907 C.

2

$$\begin{array}{r} s. \ d. \\ 6 : 8 \text{ --- } \frac{1}{4} \end{array} \left\{ \begin{array}{l} 1814 : - : - \\ 302 : 6 : 8 \end{array} \right\} \text{Sub.}$$

£ 1511 : 13 : 4 Answer.

601. 871 Tons, at £ 19 : 12 Ⓕ
 Ton.

871 Tons.

20

$$\begin{array}{r} s. \\ 8 \text{ --- } \frac{1}{10} \end{array} \left\{ \begin{array}{l} 17420 : - \\ 348 : 8 \end{array} \right\} \text{Subtract.}$$

£ 17071 : 12 Answer.

602. 713 Tons, at £ 19 : 10 Ⓕ
 Ton.

713 Tons.

20

$$\begin{array}{r} s. \\ 10 \text{ --- } \frac{1}{2} \end{array} \left\{ \begin{array}{l} 14260 : - \\ 356 : 10 \end{array} \right\} \text{Subtract.}$$

£ 13903 : 10 Answer.

* If the Price of the Integer in the above Examples had been less than 131. the Work might have been done shorter by the foregoing Methods.

Examples

Examples for the Learner's Exercise.

Answer.

- At £ 3 : 19 : 10 $\frac{1}{2}$ C. what cost 871 C. ? — £ 3476 : 14 : 10
 What cost 875 Tons, at £ 17 : 19 : 9 $\frac{1}{2}$ Ton ? — 15739 : 1 : 3
 At £ 2 : 19 : 8 $\frac{1}{2}$ C. what cost 837 C. ? — 2597 : 1 : —
 If 1 Ell cost £ 2 : 19 : 6, what cost 783 Ells ? — 2329 : 8 : 6
 At £ 1 : 19 : 4 $\frac{1}{2}$ Yard, what cost 913 Yards ? — 1795 : 11 : 4
 At £ 1 : 19 $\frac{1}{2}$ Yard, what cost 879 Yards ? — 1714 : 1 : —
 At £ 9 : 18 : 4 $\frac{1}{2}$ Dozen, what cost 813 Dozen ? 8062 : 5 : —
 At £ 19 : 18 $\frac{1}{2}$ great Grofs, what cost 871 great Grofs ? 17332 : 18 : —
 At £ 4 : 17 : 6 $\frac{1}{2}$ Grofs, what cost 807 Grofs ? — 3934 : 2 : 6
 What cost 171 Dozen, at £ 8 : 16 : 8 $\frac{1}{2}$ Dozen ? 1510 : 10 : —
 What cost 713 Lottery Tickets, at £ 19 : 16 each ? 14117 : 8 : —
 What cost 187 Grofs, at £ 1 : 15 $\frac{1}{2}$ Grofs ? — 327 : 5 : —
 At £ 17 : 14 $\frac{1}{2}$ Ton, what cost 813 Tons ? — 14390 : 2 : —
 At £ 2 : 13 : 4 $\frac{1}{2}$ C. what cost 217 C. ? — 578 : 13 : 4
 At £ 19 : 12 $\frac{1}{2}$ Ton, what cost 817 Tons ? — 16013 : 4 : —
 At £ 19 : 10 $\frac{1}{2}$ Grofs, what cost 371 Grofs ? — 7034 : 10 : —

C A S E XVI.

WHEN there is a Fraction annexed to the Integers,

R U L E.

I. Find the Value of the Integers as in the foregoing Cases.

II. For the Fractional Part,

Take Parts of the Price of the Integer.

III. Add the Price of the Fraction with the other Part of the Work, the Sum will be the Answer.

Examples.

603. $937\frac{1}{2}$ C. at £ 3 : 17 : 8 $\frac{1}{2}$ C.
$$\begin{array}{r} 937\frac{1}{2} \text{ C.} \\ 3 \end{array}$$

s.	d.	2811 : — : —
16 : —	$\frac{3}{10}$	749 : 12 : —
1 : 8	$\frac{1}{10}$	78 : 1 : 8
C. $\frac{1}{2}$	$\frac{1}{2}$	1 : 18 : 10

£ 3840 : 12 : 6 Answer.

604. $379\frac{1}{2}$ Yards, at £ 2 : 18 : 7 $\frac{1}{2}$ Yard.
$$\begin{array}{r} 379\frac{1}{2} \text{ Yds.} \\ 2 \end{array}$$

s.	d.	758 : — : —
18 : —	$\frac{3}{10}$	341 : 2 : —
6	$\frac{1}{10}$	9 : 9 : 6
1	$\frac{1}{10}$	1 : 11 : 7
Yd. $\frac{1}{2}$	$\frac{1}{2}$	— : 14 : 7 $\frac{1}{2}$

£ 1110 : 17 : 8 $\frac{1}{2}$ Ans.605. $139\frac{1}{2}$ C.

TICE.

Case XVI. 119

609. 379 $\frac{1}{2}$ Feet, at 2s. 9d. d^{p} Foot.379 $\frac{1}{2}$ Feet.

11

4169
80

52 : 2 : 3 See Ex. 160.
 — : — : 8 $\frac{1}{2}$
 — : — : 4

£ 52 : 3 : 3 $\frac{1}{2}$ Answer.

1. 2 : 9d.

3

8 : 3
81 : — $\frac{1}{4}$ 610. 785 $\frac{1}{2}$ lb, at 7s. 9 $\frac{1}{2}$ d. d^{p} lb.785 $\frac{1}{2}$ lb.

3

2355
8

s. d.

7 : 6 : — 294 : 7 : 6 See Ex. 177.

3 : — : — 9 : 16 : 3

1b. $\frac{1}{2}$: — : — 1 : 12 : 8 $\frac{1}{2}$ $\frac{1}{4}$: — : — — : 3 : 10 $\frac{1}{4}$ $\frac{1}{8}$: — : — — : — : 11 $\frac{1}{2}$ £ 306 : 1 : 3 $\frac{1}{2}$ Answer.s. 7 : 9 $\frac{1}{2}$ d.

5

38 : 11 $\frac{1}{2}$
84 : 10 $\frac{1}{4}$ 611. 374 $\frac{1}{2}$ Feet, at 1s. 7 $\frac{1}{2}$ d. d^{p} Foot.374 $\frac{1}{2}$ Feet.

s. d.

1 : — : — 18 : 14 : —
 6 : — : — 9 : 7 : —
 1 $\frac{1}{2}$: — : — 2 : 6 : 9
 Ft. $\frac{1}{4}$: — : — — : 7 : 9 $\frac{1}{2}$
 $\frac{1}{8}$: — : — — : — : 9 $\frac{1}{2}$
 — : — : — — : — : 4 $\frac{1}{2}$

£ 30 : 16 : 9 Answer.

* s. 1 : 7 $\frac{1}{2}$ d.

3

 $\frac{6}{8} = \frac{3}{4}$ 4 : 11 $\frac{1}{2}$

4

1 : 2 $\frac{1}{2}$

* By this Method there is a Far-
 thing difference, for which Reason I
 prefer it when it is the shortest, but
 especially where there is any loss by
 making use of the other, however I
 shall insert both for the sake of Ex-
 ample.

612. 735 $\frac{1}{2}$ Yards, at 3s. 9d. d^{p} Yard.735 $\frac{1}{2}$ Yds.

s. d.

3 : 4 : — 122 : 10 : —

5 : — : — 15 : 6 : 3

Yd. $\frac{1}{4}$: — : — — : 1 : 10 $\frac{1}{4}$ $\frac{1}{8}$: — : — — : — : 11 $\frac{1}{2}$ — : — : — — : — : 5 $\frac{1}{2}$ £ 137 : 19 : 6 $\frac{1}{2}$ Answer.

s. 3 : 9d.

7

26 : 3

8

3 : 3 $\frac{1}{2}$ 613. 137 $\frac{1}{2}$ Yards,

613. $137\frac{3}{16}$ Yards, at $18s. 7\frac{1}{2}d.$
 $\frac{3}{16}$ Yard.

$$\begin{array}{r}
 137\frac{3}{16} Yds. \\
 s. \quad d. \\
 18: \frac{9}{16} \quad 123: 6: - \\
 \quad 6: \frac{1}{16} \quad 3: 8: 6 \\
 \quad 1\frac{1}{2}: \frac{1}{16} \quad -: 17: 1\frac{1}{2} \\
 Yd. \frac{3}{16}: \frac{1}{16} \quad -: 9: 3\frac{1}{2} \\
 \hline
 \pounds 128: -: 11\frac{1}{2} \text{ Ans.}
 \end{array}$$

$$s. 18: 7\frac{1}{2}d.$$

$$\begin{array}{r}
 149: - \\
 4 \\
 16 \left\{ \begin{array}{l} 37: 3 \\ 4 \end{array} \right. \\
 \hline
 9: 3\frac{1}{2}
 \end{array}$$

$$s. 18: 7\frac{1}{2}d.$$

$$\begin{array}{r}
 4 \\
 74: 6 \\
 8 \\
 \hline
 9: 3\frac{1}{2}
 \end{array}
 \quad \text{also } \frac{3}{16} = \frac{3}{8}$$

614. $879\frac{3}{16}$ Yards, at $15s. 9\frac{1}{2}d.$
 $\frac{3}{16}$ Yard.

$$\begin{array}{r}
 879\frac{3}{16} Yds. \\
 s. \quad d. \\
 10: \frac{1}{16} \quad 139: 10: - \\
 5: \frac{1}{16} \quad 219: 15: - \\
 6: \frac{1}{16} \quad 21: 19: 6 \\
 3: \frac{1}{16} \quad 10: 19: 9 \\
 1: \frac{1}{16} \quad 2: 14: 11\frac{1}{2} \\
 Yd. \frac{3}{16}: \frac{1}{16} \quad -: 3: 11\frac{1}{2} \\
 \hline
 \pounds 695: 3: 1\frac{1}{2} \text{ Ans.}
 \end{array}$$

See Example 632.

$$s. 15: 9\frac{1}{2}d.$$

$$\begin{array}{r}
 4 \\
 63: 3 \\
 8 \\
 16 \left\{ \begin{array}{l} 7: 10\frac{1}{2} \\ 2 \end{array} \right. \\
 \hline
 \pounds 3: 11\frac{1}{2}
 \end{array}$$

615. $207\frac{3}{16}$ Yards, at $\pounds 3: 18: 7$
 $\frac{3}{16}$ Yard.

$$\begin{array}{r}
 207\frac{3}{16} Yds. \\
 3 \\
 s. \quad d. \\
 18: \frac{9}{16} \quad 621: -: - \\
 \quad 6: \frac{1}{16} \quad 186: 6: - \\
 \quad 1: \frac{1}{16} \quad 5: 3: 6 \\
 Yd. \frac{3}{16}: \frac{1}{16} \quad -: 17: 3 \\
 \hline
 \pounds 813: 16: 6\frac{1}{2} \text{ Ans.}
 \end{array}$$

$$\pounds 3: 18: 7$$

$$\begin{array}{r}
 7 \quad 17: 2 \\
 8 \\
 16 \left\{ \begin{array}{l} -: 19: 7\frac{1}{2} \\ 2 \end{array} \right. \\
 \hline
 -: 9: 9\frac{1}{2}
 \end{array}$$

616. $739\frac{1}{16}$ Yards, at $16s. 10d.$
 $\frac{1}{16}$ Yard.

$$\begin{array}{r}
 739\frac{1}{16} Yds. \\
 s. \quad d. \\
 16: \frac{1}{16} \quad 591: 4: - \\
 \quad 6: \frac{1}{16} \quad 18: 9: 6 \\
 \quad 4: \frac{1}{16} \quad 12: 6: 4 \\
 Yd. \frac{1}{16}: \frac{1}{16} \quad -: 1: -\frac{1}{2} \\
 \hline
 \pounds 612: -: 10\frac{1}{2} \text{ Ans.}
 \end{array}$$

TICE.

• 1. 16 : 10d.

$$16 \left\{ \begin{array}{l} 4 \\ 4 : 2\frac{1}{2} \\ 4 \\ 1 : -\frac{1}{2} \end{array} \right.$$

617. $835\frac{1}{16}$ Yards, at £ 2 : 5 : $10\frac{1}{2}$
 qd^r Yard.

$835\frac{1}{16}$ Yds.
 2

s. d.	1670	
4:—	167	
1: 8	69 : 11 : 8	
$2\frac{1}{2}$	8 : 13 : $11\frac{1}{2}$	
Yd. $\frac{1}{16}$	— : 5 : $8\frac{1}{2}$	
$\frac{1}{16}$	— : 2 : $10\frac{1}{2}$	

£ 1915 : 14 : $2\frac{1}{2}$ Answ.

£ 2 : 5 : $10\frac{1}{2}$
 3

$$16 \left\{ \begin{array}{l} 6 : 17 : 7\frac{1}{2} \\ 4 \\ 1 : 14 : 4\frac{1}{2} \\ 4 \\ - : 8 : 7 \end{array} \right.$$

618. $175\frac{1}{8}$ Yards, at 7s. $7\frac{1}{2}$ d.
 qd^r Yard.

$175\frac{1}{8}$ Yds.

s. d.	35 : — : —
4:—	29 : 3 : 4
3: 4	2 : 3 : 9
$3\frac{1}{8}$	— : 10 : $11\frac{1}{2}$
Yd. $\frac{1}{8}$	— : 1 : $10\frac{1}{2}$
$\frac{1}{8}$	— : — : 5

£ 67 : — : $4\frac{1}{2}$ Answ.

Case XVI. 121

1. 7 : $7\frac{1}{2}$ d.

$$16 \left\{ \begin{array}{l} 5 \\ 38 : 2\frac{1}{2} \\ 4 \\ 9 : 6\frac{1}{2} \\ 4 \\ 2 : 4\frac{1}{2} \end{array} \right.$$

619. $769\frac{6}{16}$ Yards, at £ 3 : 8 : $7\frac{1}{2}$
 qd^r Yard.

$769\frac{6}{16}$ Yds.
 3

s. d.	2307	
8:—	307 : 12 : —	
$6\frac{1}{16}$	19 : 4 : 6	
$1\frac{1}{16}$	3 : 4 : 1	
$\frac{1}{16}$	— : 16 : $-\frac{1}{2}$	
Yd. $\frac{1}{16}$	— : 17 : $1\frac{1}{2}$	
$\frac{1}{16}$	— : 8 : $6\frac{1}{2}$	

£ 2639 : 2 : $3\frac{1}{2}$ Answ.

£ 3 : 8 : $7\frac{1}{2}$
 3

$$10 : 5 : 9\frac{1}{2} \\ 8 \\ 1 : 5 : 8\frac{1}{2}$$

620. $317\frac{7}{16}$ Yards, at 13s. $2\frac{1}{2}$ d.
 qd^r Yard.

$317\frac{7}{16}$ Yds.

s. d.	190 : 4 : —
12:—	15 : 17 : —
1:—	2 : 12 : 10
$2\frac{1}{8}$	— : 6 : $7\frac{1}{2}$
Yd. $\frac{1}{16}$	— : 3 : $3\frac{1}{2}$
$\frac{1}{16}$	— : 1 : $7\frac{1}{2}$
$\frac{1}{16}$	— : — : 9

£ 209 : 6 : $2\frac{1}{2}$ Answ.

122 Case XVI.

$$1. 13 : 2\frac{1}{2} d.$$

$$\begin{array}{r} 92 : 3\frac{1}{2} \\ 4 \\ 16 \left\{ \begin{array}{l} 23 : -\frac{1}{4} \\ 4 \end{array} \right. \end{array}$$

$$5 : 9$$

621. $135\frac{9}{16}$ Yards, at $\mathcal{L} 5 : 11 : 8\frac{1}{2}$
 Yard.
 $135\frac{9}{16} Yds.$

$$\begin{array}{r} 5 \\ 675 \\ 10 : - - - \frac{1}{2} \\ 1 : - - - \frac{1}{30} \\ 6 : - - - \frac{1}{10} \\ 2 : - - - \frac{1}{15} \\ \frac{1}{2} : - - - \frac{1}{10} \\ Yd. \frac{9}{16} : - - - \frac{1}{16} \\ \frac{1}{16} : - - - \frac{1}{16} \end{array} \begin{array}{l} 67 : 10 : - \\ 6 : 15 : - \\ 3 : 7 : 6 \\ 1 : 2 : 6 \\ - : 8 : 5\frac{1}{2} \\ 2 : 15 : 10\frac{1}{2} \\ - : 6 : 11\frac{1}{2} \end{array}$$

$$\mathcal{L} 757 : 6 : 3\frac{1}{2} \text{ Ans.}$$

$$\mathcal{L} 5 : 11 : 8\frac{1}{2}$$

$$\begin{array}{r} 50 : 5 : 6\frac{1}{2} \\ 4 \\ 16 \left\{ \begin{array}{l} 12 : 11 : 4\frac{1}{2} \\ 4 \end{array} \right. \end{array}$$

$$2 : 10$$

622. $137\frac{1}{16}$ Yards, at $\mathcal{L} 4 : 2 : 10\frac{1}{2}$
 Yard.
 $137\frac{1}{16} Yds.$

$$\begin{array}{r} 4 \\ 548 \\ 2 : 6 : -\frac{1}{2} \\ 4 : - - - \frac{1}{20} \\ \frac{1}{2} : - - - \frac{1}{10} \\ Yd. \frac{1}{16} : - - - \frac{1}{16} \\ \frac{1}{16} : - - - \frac{1}{16} \end{array} \begin{array}{l} 17 : 2 : 6 \\ 2 : 5 : 8 \\ - : 5 : 8\frac{1}{2} \\ 2 : 1 : 5\frac{1}{2} \\ - : 10 : 4\frac{1}{2} \end{array}$$

$$\mathcal{L} 570 : 5 : 8 \text{ Answer.}$$

PRAC.

$$\mathcal{L} 4 : 2 : 10\frac{1}{2}$$

$$\begin{array}{r} \frac{10}{16} = \frac{5}{8} \\ 20 : 14 : 4\frac{1}{2} \\ 8 \\ 2 : 11 : 9\frac{1}{2} \end{array}$$

623. $873\frac{11}{16}$ Yards, at $\mathcal{L} 3 : 17 : 2\frac{1}{2}$
 Yard.
 $873\frac{11}{16} Yds.$

$$\begin{array}{r} 2619 \\ 16 : - - - \frac{9}{10} \\ 1 : - - - \frac{1}{30} \\ 2 : - - - \frac{1}{6} \\ Yd. \frac{11}{16} : - - - \frac{1}{16} \\ \frac{1}{16} : - - - \frac{1}{16} \\ \frac{1}{16} : - - - \frac{1}{16} \end{array} \begin{array}{l} 698 : 8 : - \\ 43 : 13 : - \\ 7 : 5 : 6 \\ - : 18 : 2\frac{1}{2} \\ 1 : 18 : 7\frac{1}{2} \\ - : 9 : 7\frac{1}{2} \\ - : 4 : 9\frac{1}{2} \end{array}$$

$$\mathcal{L} 3371 : 17 : 8\frac{1}{2} \text{ Ans.}$$

$$\mathcal{L} 3 : 17 : 2\frac{1}{2}$$

$$\begin{array}{r} 42 : 9 : -\frac{1}{2} \\ 4 \\ 16 \left\{ \begin{array}{l} 10 : 12 : 3 \\ 4 \end{array} \right. \\ 2 : 13 : -\frac{1}{2} \end{array}$$

624. $307\frac{1}{16}$ Yards, at $10s. 2\frac{1}{2}d.$
 Yard.
 $307\frac{1}{16} Yds.$

$$\begin{array}{r} 153 \\ 10 : - - - \frac{1}{2} \\ 2 : - - - \frac{1}{10} \\ \frac{1}{2} : - - - \frac{1}{10} \\ Yd. \frac{1}{16} : - - - \frac{1}{16} \\ \frac{1}{16} : - - - \frac{1}{16} \end{array} \begin{array}{l} 153 : 10 : - \\ 2 : 11 : 2 \\ - : 12 : 9\frac{1}{2} \\ - : 6 : 4\frac{1}{2} \\ - : 5 : 1\frac{1}{2} \\ - : 2 : 6\frac{1}{2} \end{array}$$

$$\mathcal{L} 157 : 8 : - \text{ Answer.}$$

10s.

$$1. 10 : 2\frac{1}{2} d.$$

$$\frac{3}{30 : 8\frac{1}{2}}$$

$$\frac{4}{7 : 8}$$

$$\frac{7 : 8}{7 : 8}$$

625. 873 $\frac{1}{8}$ Yards, at $\mathcal{L} 3 : 11 : 11\frac{1}{2} d.$

$\frac{1}{8}$ Yard.

$$873\frac{1}{8} Yds.$$

$$3$$

s.	d.	2619	
10 : —	—	436 : 10 : —	
1 : 8	—	72 : 15 : —	
3	—	10 : 18 : 3	
Yd.	—	1 : 16 : 4 $\frac{1}{2}$	
—	—	1 : 15 : 11 $\frac{1}{2}$	
—	—	— : 17 : 11 $\frac{1}{2}$	
—	—	— : 4 : 5 $\frac{1}{2}$	

$$\mathcal{L} 343 : 18 : — \frac{1}{2} Ans.$$

$$\mathcal{L} 3 : 11 : 11\frac{1}{2}$$

$$12$$

$$\left. \begin{array}{l} 43 : 3 : 6 \\ 3 : 11 : 11\frac{1}{2} \end{array} \right\} Add.$$

$$46 : 15 : 5\frac{1}{2}$$

$$16 \left\{ \begin{array}{l} 4 \\ 11 : 13 : 10\frac{1}{2} \\ 4 \end{array} \right.$$

$$2 : 18 : 5\frac{1}{2}$$

626. 173 $\frac{1}{8}$ Yards, at $17s. 9d.$

$\frac{1}{8}$ Yard.

$$173\frac{1}{8} Yds.$$

s.	d.	138 : 8 : —
16 : —	—	14 : 8 : 4
1 : 8	—	— : 14 : 5
Yd.	—	— : 8 : 10 $\frac{1}{2}$
—	—	— : 4 : 5 $\frac{1}{2}$
—	—	— : 2 : 2 $\frac{1}{2}$

$$\mathcal{L} 154 : 6 : 3\frac{1}{2} Ans.$$

$$s. 17 : 9d.$$

$$\frac{11}{16} = \frac{7}{8}$$

$$\frac{124}{8} = 15\frac{4}{8}$$

$$\frac{15 : 6\frac{1}{2}}{15 : 6\frac{1}{2}}$$

See Example 633.

627. 827 $\frac{1}{8}$ Yards, at $\mathcal{L} 5 : 2 : 7$

$\frac{1}{8}$ Yard.

$$827\frac{1}{8} Yds.$$

$$5$$

s.	d.	4135	
2 : —	—	82 : 14 : —	
6 : —	—	20 : 13 : 6	
1 : —	—	3 : 8 : 11	
Yd.	—	2 : 11 : 3 $\frac{1}{2}$	
—	—	1 : 5 : 7 $\frac{1}{2}$	
—	—	— : 12 : 9 $\frac{1}{2}$	
—	—	— : 6 : 4 $\frac{1}{2}$	

$$\mathcal{L} 4246 : 12 : 6\frac{1}{2} Ans.$$

$$\mathcal{L} 5 : 2 : 7$$

$$3$$

$$15 : 7 : 9$$

$$5$$

$$76 : 18 : 9$$

$$16 \left\{ \begin{array}{l} 4 \\ 19 : 4 : — \\ 4 \end{array} \right.$$

$$\mathcal{L} 4 : 16 : 2$$

628. 739 $\frac{3}{8}$ Yards, at $8d. \frac{1}{8}$ Yard.

$$739\frac{3}{8} Yds.$$

$$8d.$$

d.	8	—
8 : —	—	—
—	—	—
—	—	—
—	—	—
—	—	—

$$\mathcal{L} 24 : 13 : 1\frac{1}{2} Ans.$$

$$5\frac{1}{2}$$

124 Contractions to Case XVI.

PRAC^t

629. $1371\frac{1}{2}$ Yards, at 6d. $\frac{1}{2}$ Yard. 6d.

d.	6	---	$\frac{1}{2}$	£ 34 : 5 : 6	
				4 $\frac{1}{2}$	
				£ 34 : 5 : 10 $\frac{1}{2}$	Answer.

7
42
9
4 $\frac{1}{2}$

CONTRACTIONS to Case XVI.

630. $139\frac{1}{2}$ C. at £ 1 : 19 : 4 $\frac{1}{2}$ C.

140 C.

d.	8	---	$\frac{1}{2}$	280	
				4 : 13 : 4	
C.	$\frac{1}{4}$	---	$\frac{1}{2}$	275 : 6 : 8	
				— : 9 : 10	
				£ 274 : 16 : 10	

the Price of

C. Qrs.	140 : —
	140 : —
	140 : —
	— : 1
	139 : 3

at

£	s.	d.
2	—	—
—	—	8
1	19	4
1	19	4
1	19	4

$\frac{1}{2}$ C.

See Example 605.

First, Find the Price of 140 C. at 2l. $\frac{1}{2}$ C. [by Case XII.] then find the Price of 140 C. at 8d. $\frac{1}{2}$ C. [by Case II.] subtract the Price of 140 C. at 8d. $\frac{1}{2}$ C. from the Price of 140 C. at 2l. $\frac{1}{2}$ C. the Remainder will be the Price of 140 C. at £ 1 : 19 : 4 $\frac{1}{2}$ C.

Secondly, Find the Price of $\frac{1}{4}$ C. at £ 1 : 19 : 4 $\frac{1}{2}$ C. [see Example 604.]

Lastly, Subtract the Price of $\frac{1}{4}$ C. at £ 1 : 19 : 4 $\frac{1}{2}$ C. from the Price of 140 C. at £ 1 : 19 : 4, the Remainder will be the Price of $139\frac{1}{2}$ C. at £ 1 : 19 : 4 $\frac{1}{2}$ C.

631. $731\frac{1}{2}$ Yards, at £ 4 : 17 : 9 $\frac{1}{2}$ $\frac{1}{2}$ Yard.

$731\frac{1}{2}$ Yds.

	49
6579	
2924	

d.	3581	: 18	— at —	£	s.	d.
	9	: 2 : 9	— at —	—	—	3
	3572	: 15 : 3		4	17	9
	2	: 5 : 8 $\frac{1}{2}$				
	1	: 4 : 5 $\frac{1}{2}$				
	£ 3576	: 5 : 4 $\frac{1}{2}$	Answer.			

* Of 3d.

See Example 607.

632. $875\frac{1}{2}$ Yards,

TICE.

632. 879 $\frac{4}{16}$ Yards, at 15s. 9 $\frac{1}{2}$ d.
 $\frac{1}{16}$ Yard.

$$\begin{array}{r} 879\frac{4}{16} Yds. \\ s. \quad d. \\ 16 : - \frac{9}{16} \quad 703 : 4 : - \\ \quad \quad \quad 3 - \frac{9}{16} \quad 10 : 19 : 9 \quad \left. \vphantom{\begin{array}{c} 703 \\ 10 \end{array}} \right\} \text{Sub.} \\ \hline 15 : 9 \quad 692 : 4 : 3 \\ \quad \quad \quad \frac{1}{2} - \frac{1}{4} \quad 2 : 14 : 11\frac{1}{2} \\ Yd. \frac{1}{16} - \frac{1}{4} \quad - : 3 : 11\frac{1}{2} \\ \hline \pounds 695 : 3 : 1\frac{1}{2} \text{ Ans.} \end{array}$$

See Example 614.

Contractions to Case XVI. 123

633. 173 $\frac{1}{8}$ Yards, at 17s. 9d.
 $\frac{1}{8}$ Yard.

$$\begin{array}{r} 174 Yds. \\ s. \quad d. \\ 18 : - \frac{9}{16} \quad 156 : 12 : - \\ \quad \quad \quad 3 - \frac{9}{16} \quad 2 : 3 : 6 \quad \left. \vphantom{\begin{array}{c} 156 \\ 2 \end{array}} \right\} \text{Sub.} \\ \hline 17 : 9 \quad 154 : 8 : 6 \\ Yd. \frac{1}{8} - \frac{1}{4} \quad - : 2 : 2\frac{1}{2} \quad \left. \vphantom{\begin{array}{c} 154 \\ - \end{array}} \right\} \text{Sum.} \\ \hline \pounds 154 : 6 : 3\frac{1}{2} \text{ Ans.} \end{array}$$

See Example 626.

Examples for the Learner's Exercise.

Answer.

- At $\pounds 1 : 17 : 9\frac{1}{4}$ $\frac{1}{16}$ C. what cost 917 $\frac{1}{2}$ C. ? — $\pounds 1732 : 5 : 3\frac{1}{2}$
 At $\pounds 3 : 18 : 11$ $\frac{1}{16}$ Yard, what cost 173 $\frac{1}{2}$ Yards ? — 684 : 12 : — $\frac{1}{2}$
 At $\pounds 4 : 13 : 7$ $\frac{1}{16}$ Yard, what cost 371 $\frac{1}{2}$ Yards ? — 1739 : 9 : 7 $\frac{1}{2}$
 At 17 $\frac{1}{2}$ d. $\frac{1}{16}$ Foot, what cost 137 $\frac{1}{8}$ Feet ? — 9 : 19 : 11 $\frac{1}{2}$
 What cost 173 $\frac{1}{8}$ Yards, at 4s. 9 $\frac{1}{2}$ d. $\frac{1}{16}$ Yard ? — 41 : 10 : 1 $\frac{1}{2}$
 What cost 317 $\frac{1}{8}$ lb. at 7s. 5 $\frac{1}{2}$ d. $\frac{1}{16}$ lb. ? — 118 : 7 : 1
 What cost 717 $\frac{1}{8}$ lb. at 5s. 7 $\frac{1}{4}$ d. $\frac{1}{16}$ lb. ? — 202 : 10 : 10 $\frac{1}{2}$
 At 3s. 7d. $\frac{1}{16}$ Foot, what cost 197 $\frac{1}{8}$ Feet ? — 35 : 8 : 1 $\frac{1}{2}$
 At $\pounds 1 : - : 8$ $\frac{1}{16}$ C. what cost 907 $\frac{6}{8}$ C. ? — 938 : — : 2
 At $\pounds 4$ $\frac{1}{16}$ Yard, what cost 147 $\frac{1}{8}$ Yards ? — 591 : 10 : —
 What cost 317 $\frac{1}{8}$ Yard, at $\pounds 3 : 7 : 9$ $\frac{1}{16}$ Yard ? — 1074 : — : 11 $\frac{1}{2}$
 What cost 179 $\frac{1}{8}$ Yards, at $\pounds 1 : 17 : 11\frac{1}{4}$ $\frac{1}{16}$ Yard ? 339 : 15 : 6
 At 5s. 9d. $\frac{1}{16}$ Yard, what cost 913 $\frac{1}{8}$ Yards ? — 262 : 10 : 9 $\frac{1}{2}$
 At 9s. 5d. $\frac{1}{16}$ Yard, what cost 319 $\frac{1}{8}$ Yards ? — 150 : 6 : 3 $\frac{1}{2}$
 What cost 919 $\frac{1}{8}$ Yards, at $\pounds 1 : 13 : 5\frac{1}{2}$ $\frac{1}{16}$ Yard ? 1538 : 17 : 9 $\frac{1}{2}$
 If 1 Yard cost $\pounds 2 : 13 : 7\frac{1}{2}$, what cost 139 $\frac{6}{8}$ Yards ? 373 : 11 : 1 $\frac{1}{2}$
 At $\pounds 3 : 17 : 11$ $\frac{1}{16}$ Yard, what cost 189 $\frac{1}{8}$ Yards ? 738 : — : 4
 At $\pounds 2 : - : 7\frac{1}{4}$ $\frac{1}{16}$ Yard, what cost 981 $\frac{1}{8}$ Yards ? 1192 : 12 : 11 $\frac{1}{2}$
 What cost 981 $\frac{1}{8}$ Yards, at 3s. 8d. $\frac{1}{16}$ Yard ? — 179 : 19 : — $\frac{1}{2}$
 What cost 185 $\frac{1}{8}$ Yards, at 5s. 9 $\frac{1}{2}$ d. $\frac{1}{16}$ Yard ? — 54 : 18 : 2 $\frac{1}{2}$
 At 17s. 9 $\frac{1}{2}$ d. $\frac{1}{16}$ Yard, what cost 837 $\frac{1}{8}$ Yards ? — 746 : 1 : 3 $\frac{1}{2}$
 At $\pounds 2 : 17 : 9$ $\frac{1}{16}$ Yard, what cost 175 $\frac{1}{8}$ Yards ? — 519 : — : 6 $\frac{1}{2}$
 At 19s. 11d. $\frac{1}{16}$ Yard, what cost 915 $\frac{1}{8}$ Yards ? — 911 : 19 : 11
 At 13s. 11d. $\frac{1}{16}$ Yard, what cost 517 $\frac{1}{8}$ Yards ? — 360 : 7 : 1
 At $\pounds 5 : 19 : 11\frac{1}{2}$ $\frac{1}{16}$ Yard, what cost 187 $\frac{1}{8}$ Yards ? 1127 : 8 : 7
 What cost 197 $\frac{1}{8}$ Yards, at 19 $\frac{1}{4}$ d. $\frac{1}{16}$ Yard ? — 15 : 16 : 10 $\frac{1}{2}$

SEVERAL

SEVERAL other Examples with Fractions annexed.

R U L E.

I. Reduce the given Quantity into an improper Fraction by Case I. of Vulgar Fractions.

II. Make a Compound Mixt Fraction of the improper Fraction and the Price, by placing the Word of between them.

III. Find the Value of the Compound Mixt Fraction by Case III. of Vulgar Fractions.

*Examples.*634. $2\frac{1}{2}$ Days, at 2s. 6d. $\frac{1}{2}$ Day. $2\frac{1}{2} = \frac{5}{2}$ by Case III. of Vulgar Fractions. $\frac{5}{2}$ of 2s. 6d.

s. d.

2 : 6

9

22 : 6

4

s. 5 : $7\frac{1}{2}$ Answer.635. $1\frac{1}{2}$ Yard, at £ 4 : 16 : 7 = $\frac{3}{2}$ of £ 4 : 16 : 7.

£ s. d.

4 : 16 : 7

11

53 : 2 : 5

8

£ 6 : 12 : $9\frac{1}{2}$ Answer.636. $1\frac{1}{2}$ Yard, at £ 2 : 17 : 10 $\frac{1}{2}$ Yard.

£ s. d.

2 : 17 : 10

7

20 : 4 : 10

4

£ 5 : 1 : $2\frac{1}{2}$ Answer.637. $2\frac{1}{2}$ C. at £ 3 : 18 : $7\frac{1}{2}$ $\frac{5}{2}$ C.

£ s. d.

3 : 18 : $7\frac{1}{2}$

5

19 : 3 : $1\frac{1}{2}$

2

£ 9 : 16 : $6\frac{1}{2}$ Answer.638. $2\frac{1}{2}$ Yards,

TICE.

Contractions to Case XVI. 127

638. $2\frac{1}{2}$ Yards, at £ 2 : 7 : 9
 $\frac{1}{4}$ Yard.

£ s. d.
 2 : 7 : 9
 11

26 : 5 : 3
 4

£ 6 : 11 : $3\frac{1}{2}$ Answer.

639. $3\frac{1}{2}$ Yards, at £ 1 : 19 : 5
 $\frac{1}{4}$ Yard.

£ s. d.
 1 : 19 : 5
 7

13 : 15 : 11
 2

£ 6 : 17 : $11\frac{1}{2}$ Answer.

Examples for the Learner's Exercise.

Answer.

What cost $1\frac{1}{2}$ Yard, at £ 1 : 17 : 9 $\frac{1}{4}$ Yard? — £ 2 : 11 : $10\frac{1}{2}$

What cost $1\frac{1}{2}$ Yard, at £ 3 : 16 : 7 $\frac{1}{4}$ Yard? — 6 : 14 : — $\frac{1}{2}$

At £ 1 : 13 : 3 $\frac{1}{4}$ C. what cost $2\frac{1}{2}$ C.? — 3 : 15 : $9\frac{1}{2}$

At £ 2 : 17 : 3 $\frac{1}{4}$ Load, what cost $2\frac{1}{2}$ Loads? — 7 : 3 : $6\frac{1}{2}$

What cost $2\frac{1}{2}$ C. at £ 1 : 17 : $3\frac{1}{2}$ $\frac{1}{4}$ C.? — 5 : 2 : $6\frac{1}{2}$

What cost $3\frac{1}{2}$ Yards, at £ 3 : 18 : 1 $\frac{1}{4}$ Yard? — 13 : 13 : $3\frac{1}{2}$



P R A C T I C E.

WHEN the given Quantities are of several Denominations.

R U L E.

Find the Value of the Integers as in the foregoing Cases, and for the lesser Denominations in the given Quantity, if they are an aliquot Part of an Integer, or Unit of the highest Denomination; divide the given Price thereby, but if they are not an aliquot Part, take Parts for them, at twice or more times, as you can most conveniently, and divide by those Divisors, then add the [Product, if any, and] Quotients together, their Sum will be the Answer.

I. C L O T H M E A S U R E.

4 Nails	}	make	{	1 Quarter.
4 Quarters				1 Yard.
5 Quarters				1 Ell English.
6 Quarters				1 French Ell.
3 Quarters				1 Flemish Ell.

T A B L E S of aliquot Parts.

I. One Yard the Integer.

<i>Qrs. Na.</i>	
— : 2 — is —	$\frac{1}{2}$
1 : — — — —	$\frac{1}{4}$
2 : — — — —	$\frac{1}{2}$

II. One Quarter the Integer.

<i>Nail.</i>	
1 — is —	$\frac{1}{4}$
2 — — — —	$\frac{1}{2}$

III. One Ell English the Integer.

<i>Qrs. Na.</i>	
— : 1 — is —	$\frac{1}{10}$
— : 2 — — — —	$\frac{1}{5}$
1 : — — — —	$\frac{1}{3}$
1 : 1 — — — —	$\frac{1}{4}$
2 : 2 — — — —	$\frac{1}{2}$

IV. One French Ell the Integer,

<i>Qrs. Na.</i>	
— : 2 — is —	$\frac{1}{2}$
— : 3 — — — —	$\frac{1}{3}$
1 : — — — —	$\frac{1}{6}$
1 : 2 — — — —	$\frac{1}{4}$
2 : — — — —	$\frac{1}{3}$
3 : — — — —	$\frac{1}{2}$

V. One Flemish Ell the Integer.

<i>Qrs. Na.</i>	
— : 1 — is —	$\frac{1}{12}$
— : 2 — — — —	$\frac{1}{6}$
— : 3 — — — —	$\frac{1}{4}$
1 : — — — —	$\frac{1}{3}$
1 : 2 — — — —	$\frac{1}{2}$

Examples.

Examples.

640. Yds. Qrs.
713 : 2, at 7s. 9½d. ⌘
Yard.

Yds. Qrs.
713 : 2

s.	d.	
6	8	237 : 13 : 4
1	—	35 : 13 : —
1½	—	4 : 9 : 1½
Qrs. 2	—	— : 3 : 10½

£ 277 : 19 : 4½ Answer.

641. Yds. Qr.
17 : 1, at 13s. 8d. ⌘
Yard.

Yds. Qr.
17 : 1

s.	d.	
12	—	10 : 4 : —
1	8	1 : 8 : 4
Qr. 1	—	— : 3 : 5

£ 11 : 15 : 9 Answer.

OR,

$$4 \times 4 + 1 = 17$$

s.	d.	
13	8	
	4	
2	14	8
	4	

Qr.		
1	—	10 : 18 : 8
—	—	— : 13 : 8
—	—	— : 3 : 5

£ 11 : 15 : 9 Answer.

S

642. Yds. Qrs. Na.
71 : — : 1, at 8s. 11¼d.
⌘ Yard.

Yds. Qrs. Na.
71 : — : 1

s.	d.	
8	—	28 : 8 : —
8	—	2 : 7 : 4
3	—	— : 17 : 9
¼	—	— : 4 : 5½
Na. 2	—	— : 1 : 1½
1	—	— : — : 0½

£ 31 : 18 : —½ Answer.

* Of 8s.

See Example 664.

N. B. Those Lines which are only preparative to the Work, are not to be added with the rest, and are inclosed with double Lines, as in the above Example.

643. Yds. Qrs. Na.
793 : 3 : 3, at £ 9 : 19 : 10½
⌘ Yard.

Yds. Qrs. Na.
793 : 3 : 3

s.	d.	
18	—	7137
1	8	713 : 14 : —
2	—	66 : 1 : 8
¼	—	6 : 12 : 2
Qrs. Na.		— : 16 : 6½
2	—	4 : 19 : 11
1	—	2 : 9 : 1½
2	—	1 : 4 : 11½
1	—	— : 12 : 5½

£ 7933 : 11 : 8½ Ans.

644. 4 Pieces,

644. 4 Pieces, each 17 : 1 : 3,
at 13½ d. \mathcal{L} Ell.
Yds. Qrs. Na.

17 : 1 : 3
4

69 : 3 : — at 13½ d.

s. d.
1 : — : —
12 : — : —
Qrs. 2 : — : —
1 : — : —

\mathcal{L} 3 : 18 : 5½ Answer.

13½ d.

3

40½

4

10 d.

Ells Eng. Qrs. Na.

645. 8 : — : 1, at \mathcal{L} 8 : 7 : 8

\mathcal{L} 8 : 7 : 8
8

Na.
1 : — : —
67 : 1 : 4
— : 8 : 4½

\mathcal{L} 67 : 9 : 8½ Answer.

Ells Eng. Qrs. Na.

646. 17 : — : 2, at \mathcal{L} 3 : 10 : 9

\mathcal{L} Ell.
Ells Eng. Qrs. Na.

17 : — : 2
3

s. d.
10 : — : —
6 : — : —
3 : — : —
Na. 2 : — : —

\mathcal{L} 60 : 9 : 9½ Answer.

Ells Eng. Qrs.

647. 9 : 1, at 3 s. 7½ d. \mathcal{L} Ell.
s. 3 : 7½ d.
9

Qrs. Na.
1 : — : —
1 : — : —
1 : 12 : 7½
— : — : 8½

\mathcal{L} 1 : 13 : 4 Answer.

Ells Eng. Qrs. Na.

648. 6 : 1 : 1, at 3 s. 10 d. \mathcal{L} Ell.
s. 3 : 10 d.
6

Qrs. Na.
1 : 1 : —
1 : — : —
1 : 3 : —
— : — : 11½

\mathcal{L} 1 : 3 : 11½ Answer.

Ells Eng. Qrs. Na.

649. 13 : 2 : 2, at \mathcal{L} 1 : 13 : 7

\mathcal{L} Ell.
 \mathcal{L} 1 : 13 : 7
12

Qrs. Na.
20 : 3 : —
1 : 13 : 7
2 : 2 : —
— : 16 : 9½

\mathcal{L} 22 : 13 : 4½ Ans.

Ells Eng. Qrs. Na.

650. 713 : 4 : 3, at \mathcal{L} 3 : 17 : 9

\mathcal{L} Ell.
Ells Eng. Qrs. Na.

713 : 4 : 3
3

s. d.
16 : — : —
1 : 8 : —
1 : — : —
Qrs. Na.
2 : 2 : —
1 : 1 : —
1 : — : —

\mathcal{L} 2775 : 9 : 7½ Ans.

* Of 1 Ell.

651. 7 French

TICE.

French Ells. Qrs. Na.

651. 7 : — : 2, at £ 1 : 13 : 7
 $\frac{1}{2}$ Ell.

£ 1 : 13 : 7
 7

Na. $\frac{1}{2}$ Ell. $\frac{1}{2}$ Ell.
 2 : — : 11 : 15 : 1
 — : — : 2 : 9

£ 11 : 17 : 10 $\frac{1}{2}$ Answer.

Fr. Ells. Qrs. Na.

652. 19 : — : 3, at £ 3 : 19 : 11
 $\frac{1}{2}$ Ell.

$3 \times 6 + 1 = 19$

£ 3 : 19 : 11
 3

11 : 19 : 9
 6

Na. $\frac{1}{2}$ Ell. $\frac{1}{2}$ Ell.
 3 : — : 71 : 18 : 6
 — : — : 3 : 19 : 11
 — : — : 9 : 11

£ 76 : 8 : 4 $\frac{1}{2}$ Answer.

See Example 666.

Fr. Ells. Qrs.

653. 71 : 1, at £ 2 : 17 : 8 $\frac{1}{2}$
 $\frac{1}{2}$ Ell.

$7 \times 10 + 1 = 71$

£ 2 : 17 : 8 $\frac{1}{2}$
 10

28 : 17 : 1
 7

Qrs. Na. $\frac{1}{2}$ Ell. $\frac{1}{2}$ Ell.
 1 : — : 201 : 19 : 7
 — : — : 2 : 17 : 8 $\frac{1}{2}$
 — : — : 9 : 7 $\frac{1}{2}$

£ 205 : 6 : 10 $\frac{1}{2}$ Answer.

Cloth Measure. 131

Fr. Ells. Qrs. Na.

654. 8 : 1 : 2, at 3 s. 7 $\frac{1}{2}$ d. $\frac{1}{2}$ Ell.

s. 3 : 7 $\frac{1}{2}$ d.
 8

Qrs. Na. $\frac{1}{2}$ Ell. $\frac{1}{2}$ Ell.
 1 : 2 : — : 1 : 9 : —
 — : — : — : — : 10 $\frac{1}{2}$

£ 1 : 9 : 10 $\frac{1}{2}$ Answer.

Fr. Ells. Qrs. s. d.

655. 11 : 2, at 4 : 9 $\frac{1}{2}$ Ell.
 11

Qrs. $\frac{1}{2}$ Ell. $\frac{1}{2}$ Ell.
 2 : — : 2 : 12 : 3
 — : — : — : 1 : 7

£ 2 : 13 : 10 Answer.

Fr. Ells. Qrs.

656. 12 : 3, at 7 s. 6 $\frac{1}{2}$ d. $\frac{1}{2}$ Ell.
 French Ell.

s. 7 : 6 $\frac{1}{2}$ d.
 12

Qrs. $\frac{1}{2}$ Ell. $\frac{1}{2}$ Ell.
 3 : — : 4 : 10 : 6
 — : — : — : 3 : 9 $\frac{1}{2}$

£ 4 : 14 : 3 $\frac{1}{2}$ Answer.

Fr. Ells. Qrs. Na.

657. 709 : 5 : 3, at 14 s. 7 $\frac{1}{2}$ d.
 $\frac{1}{2}$ French Ell.

Fr. Ells. Qrs. Na.

709 : 5 : 3

s. d. $\frac{1}{2}$ Ell. $\frac{1}{2}$ Ell.
 14 : — : 7 s. 496 : 6 : —
 6 : — : 17 : 14 : 6
 1 : — : 2 : 19 : 1
 — : — : — : 14 : 9 $\frac{1}{2}$

Qrs. Na. $\frac{1}{2}$ Ell. $\frac{1}{2}$ Ell.
 3 : — : — : 7 : 3 $\frac{1}{2}$
 2 : — : — : 4 : 10 $\frac{1}{2}$
 3 : — : — : 1 : 9 $\frac{1}{2}$

£ 518 : 8 : 3 $\frac{1}{2}$ Ans.

* Of 3 Quarters.

658. 12 Ells

132 Cloth Measure.

Ells Fl. Qrs. Na.

658. 12 : — : 1, at 17s. 11½d.
 ⚡ Ell Flemish.

s. d.
 17 : 11½
 12

Na.

10	:	15	:	3
1	—	1	:	5½

£ 10 : 16 : 8½ Answer.

Ells Fl. Qrs. Na.

659. 175 : — : 2, at £1 : 13 : 7½
 ⚡ Ell Flemish.

Ells Fl. Qrs. Na.

s. d.

175	:	—	:	2
10	—	87	:	10
3	:	4	:	29
3	—	2	:	3
2	—	—	:	3
2	—	—	:	3
2	—	—	:	7½
2	—	—	:	5
2	—	—	:	7

£ 294 : 6 : 3½ Ans.

Ells Fl. Qrs. Na.

660. 137 : — : 3, at £3 : 17 : 8½
 ⚡ Ell Flemish.

Ells Fl. Qrs. Na.

137 : — : 3
 3

s. d.

411	:	—	:	—
14	—	95	:	18
3	:	22	:	16
4	—	2	:	5
4	—	—	:	5
4	—	—	:	8½
4	—	—	:	19
4	—	—	:	5

£ 533 : 5 : 5½ Ans.

PRAC.

Ells Fl. Qr.

661. 373 : 1, at 7s. 6d. ⚡ EN
 Flemish.

Ells Fl. Qr.

373 : 1

s. d.

93	:	5	:	—
5	—	46	:	12
2	:	6	:	6
2	—	—	:	2
2	—	—	:	6

£ 140 : — : — Answer.

Ells Fl. Qr. Na.

662. 179 : 1 : 2, at £3 : 19 : 11½
 ⚡ Ell.

Ells Fl. Qr. Na.

179 : 1 : 2
 3

s. d.

537	:	—	:	—
18	—	161	:	2
1	:	8	:	14
3	—	2	:	4
3	—	—	:	11
3	—	—	:	2½

Qr. Na.

1	:	19	:	11½
---	---	----	---	-----

£ 717 : 16 : 3 Answer.

See Example 667.

663. 719 Ells

663. *Ells Fl. Qrs. Na.*
 719 : 2 : 3, at £ 1 : 10 : 9½ *Ell Flemish.*

<i>s.</i>	<i>d.</i>		719 <i>Ells Fl.</i>
10	—	—	359 : 10 : —
8	—	—	23 : 19 : 4
1	—	—	2 : 19 : 11
—	—	—	— : 14 : 11½
<i>Qr. Na.</i>			
1	2	—	— : 15 : 4½
1	—	—	— : 10 : 3
1	—	—	— : 2 : 6½

£ 1107 : 12 : 5 *Answer.*

CONTRACTIONS in Cloth Measure,

664. *Yds. Qrs. Na.*
 71 : — : 1, at 8*s.* 11½*d.* *Yard.*

Yds. Qrs. Na.

71 : — : 1

9

At 9 : — : 639
At — : — : 1 : 5½ } *Subtract.*

At 8 : 11½ : 637 : 6½
 6½ } *Add.*

63 | 8 : —½
 2 | 0

£ 31 : 18 : —½ *Answer.*

* 71 *Fartings.*

4

17½*d.*

12

s. 1 : 5½

<i>Na.</i>	<i>s.</i>	<i>d.</i>
8	—	11½
2	—	1 : 1½
1	—	— : 6½

• See Example 642.

665. 793 *Yards.*

134 Contractions in Cloth Measure.

PRAC.

665. Yds. Qrs. Na. £ s. d.
793 : 3 : 3, at 9 : 19 : 10½ q^{r} Yard.

Yards.	794	
	10	
d.	7940	} Subtra ct .
2 -- $\frac{1}{10}$	6 : 12 : 4	
	7933 : 7 : 8	} Add.
$\frac{1}{4}$ -- $\frac{1}{8}$: 16 : 6½	
	7934 : 4 : 2½	} Subtra ct .
	: 12 : 5½	
	£ 7933 : 11 : 8½	Answer.

	£ s. d.
Qr. 1 -- $\frac{1}{4}$	9 : 19 : 10½
	2 : 9 : 11½
Na. 1 -- $\frac{1}{4}$: 12 : 5½

See Example 643.

666. Fr. Ells. Qrs. Na. £ s. d.
19 : — : 3, at 3 : 19 : 11 q^{r} French Ell.

	Ells.	
	19	
	4£ wanting 19d.	
	76 : — : —	} Subtra ct .
	1 : 7	
Na. 3 -- $\frac{1}{4}$	75 : 18 : 5	}
	: 9 : 11½	
	£ 76 : 8 : 4½	Answer.

See Example 652.

667. 179 Ells,

667. *Fl. Ells. Qr. Na. £ s. d.*
179 : 1 : 2, at 3 s. 19 : 11½ q^{r} Ell Flemish.

— 179 Ells. 800 indw. 118 denw. q^{r} Ell Flemish.
4 £ wanting 179 Farthings.

— 716
— : 3 : 8½ } *Subtra.*

Qr. Na.
1 : 2 --- ½
715 : 16 : 3½
1 : 19 : 11½

£ 717 : 16 : 3 *Answer.*

See Example 662.

Examples for the Learner's Exercise.

Answer.

At 3 s. 7½ d. q^{r} Yard, what cost 971 : 2 ? — £ 176 : 1 : 8½

What cost 131 : 1 at 4 s. 8½ d. q^{r} Yard ? — 30 : 15 : 2½

At 8 s. 7½ d. q^{r} Yard, what cost 87 : 1 ? — 37 : 9 : 1

At £ 2 : 17 : 11 q^{r} Yard, what cost 317 : 3 : 3 ? 920 : 13 : 10½

What cost 7 Pieces, each 27 : 1 : 4, at 17½ d. q^{r} } 13 : 2 : 1

Yard ? — : — : —

Ells Eng. Na.

At 3 s. 9 d. q^{r} Ell English, what cost 13 : 1 ? — 2 : 8 : 11½

Ells Eng. Na.

What cost 317 : 2, at 7 s. 10½ d. q^{r} Ell English ? — 124 : 10 : 6½

Ells Eng. Qr.

What cost 913 : 1, at 4 s. 11½ d. q^{r} Ell English ? — 225 : 8 : 11

Ells Eng. Qr. Na.

At £ 2 : 17 : 10½ q^{r} Ell English, what cost 19 : 1 : 1 ? 55 : 13 : 8

Ells Eng. Qrs. Na.

What cost 17 : 2 : 2, at £ 1 : 13 : 2½ q^{r} Ell English ? 29 : — : 9½

Ells Eng. Qrs. Na.

What cost 837 : 4 : 3, at £ 3 : 19 : 1½ q^{r} Ell Eng. ? 3314 : 5 : 2½

Fr. Ells. Na.

What cost 14 : 2, at £ 1 : — : 8½ q^{r} French Ell ? — 14 : 11 : 4

At

Answer.

Fr. Ells. Na.
At 7s. 3½d. ₤ French Ell, what cost 87 : 3? — 31 : 13 : 5½

Fr. Ells. Qr.
At 8s. 9½d. ₤ French Ell, what cost 17 : 1? — 7 : 10 : 6½

Fr. Ells. Qr. Na.
At £ 2 : 17 : 8 ₤ French Ell, what cost 137 : 1 : 2? 395 : 14 : 9

Fr. Ells. Qrs.
At £ 1 : 15 : 7 ₤ French Ell, what cost 141 : 2? — 251 : 9 : 1

Fr. Ells. Qrs.
At 7s. 2½d. ₤ French Ell, what cost 800 : 3? — 287 : 13 : 7

Fr. Ells. Qrs. Na.
At 18s. 11d. ₤ French Ell, what cost 713 : 5 : 3? 675 : 5 : 8½

Ells. Flem. Na.
At 17s. 5½d. ₤ Ell Flemish, what cost 17 : 1? — 15 : 2 : 3

Ells. Fl. Na.
At 3s. 7½d. ₤ Ell Flemish, what cost 871 : 2? — 158 : 16 : 1½

Ells. Fl. Na.
What cost 871 : 3, at 7s. 10½d. ₤ Ell Flemish? — 343 : 1 : 1

Ells. Fl. Qr.
What cost 87 : 1, at 8s. 1½d. ₤ Ell Flemish? — 35 : 7 : 9

Ells. Fl. Qr. Na.
At 8s. 2½d. ₤ Ell Flemish, what cost 137 : 1 : 2? 56 : 3 : 8½

Ells. Fl. Qrs. Na.
At 17s. 5½d. ₤ Ell Flemish, what cost 713 : 2 : 3? 623 : 18 : 7½



P R A C T I C E.

II. TROY WEIGHT.

24 Grains }
 20 Pennyweights } make { 1 Pennyweight.
 12 Ounces } 1 Ounce.
 1 Pound.

TABLES of aliquot Parts.

I. One Pound the Integer.

oz. dwts. gr.

1	:	—	:	—	is	—	$\frac{1}{12}$
1	:	4	:	—	—	—	$\frac{1}{3}$
1	:	6	:	16	—	—	$\frac{1}{6}$
1	:	10	:	—	—	—	$\frac{1}{8}$
2	:	—	:	—	—	—	$\frac{1}{6}$
2	:	8	:	—	—	—	$\frac{1}{3}$
3	:	—	:	—	—	—	$\frac{1}{4}$
4	:	—	:	—	—	—	$\frac{1}{3}$
6	:	—	:	—	—	—	$\frac{1}{2}$

II. One Ounce the Integer.

dwts. gr.

1	:	—	is	—	$\frac{1}{10}$
1	:	16	—	—	$\frac{1}{16}$
2	:	—	—	—	$\frac{1}{10}$
2	:	12	—	—	$\frac{1}{8}$
3	:	8	—	—	$\frac{1}{8}$
4	:	—	—	—	$\frac{1}{3}$
5	:	—	—	—	$\frac{1}{4}$
6	:	16	—	—	$\frac{1}{3}$
10	:	—	—	—	$\frac{1}{2}$

III. One Pennyweight the Integer.

Grains.

2	—	is	—	$\frac{1}{12}$
3	—	—	—	$\frac{1}{8}$
4	—	—	—	$\frac{1}{6}$
6	—	—	—	$\frac{1}{4}$
8	—	—	—	$\frac{1}{3}$
12	—	—	—	$\frac{1}{2}$

Examples.

668. lb. oz. 17 : 1, at £ 3 : 8 : 7 $\frac{1}{2}$ lb.

lb. oz.

17 : 1

3

s. d. 51
 8 : — $\frac{4}{10}$ 6 : 16 : —
 6 $\frac{1}{10}$ — : 8 : 6
 1 $\frac{1}{10}$ — : 1 : 5
 oz. 1 $\frac{1}{12}$ — : 5 : 8 $\frac{1}{2}$

£ 58 : 11 : 7 $\frac{1}{2}$ Answer.669. lb. oz. dwts. 87 : 1 : 4, at £ 3 : 17 : 10 $\frac{1}{2}$ lb.

lb. oz. dwts.

87 : 1 : 4

3 10

s. d. 261
 14 : — $\frac{7}{10}$ 60 : 18 : —
 3 : 4 $\frac{1}{10}$ 14 : 10 : —
 6 $\frac{1}{10}$ 2 : 3 : 6
 oz. dwts. 1 : 4 $\frac{1}{10}$ — : 7 : 9 $\frac{1}{2}$

£ 338 : 19 : 3 $\frac{1}{2}$ Ans.

670. 47 lb.

138 *Troy Weight.*

670. *lb. oz. dwts. gr.*
 $47 : 1 : 6 : 16$, at
 $\text{£ } 2 : 19 : 7 \text{ } \text{d}^{\text{p}}$ *lb.*

lb. oz. dwts. gr.
 $47 : 1 : 6 : 16$
 2

<i>s.</i>	<i>d.</i>		94
16	—	$-\frac{3}{10}$	$37 : 12 : —$
3	4	$-\frac{1}{2}$	$7 : 16 : 8$
3	—	$-\frac{1}{8}$	$— : 11 : 9$
<i>oz. dwts. gr.</i>			
1	6	$16 - \frac{1}{2}$	$— : 6 : 7\frac{1}{2}$

$\text{£ } 140 : 7 : —\frac{1}{4}$ *Ans.*

lb. oz. dwts.

671. $83 : 1 : 10$, at $\text{£ } 2 : 13 : 7\frac{1}{4}$
 d^{p} *lb.*

lb. oz. dwts.
 $83 : 1 : 10$
 2

<i>s.</i>	<i>d.</i>		166
13	4	$-\frac{3}{4}$	$55 : 6 : 8$
3	—	$-\frac{1}{10}$	$1 : — : 9$
$\frac{1}{4}$	$-\frac{1}{12}$		$— : 1 : 8\frac{1}{2}$
<i>oz. dwts.</i>			
1	10	$—\frac{1}{8}$	$— : 6 : 8\frac{1}{2}$

$\text{£ } 222 : 15 : 10$ *Ans.*

* Of 2*l.*

This, and several other Examples, may be wrought different ways, as follow.

See Example 696.

PRAC-

lb. oz. dwts.

672. $83 : 1 : 10$, at $\text{£ } 2 : 13 : 7\frac{1}{4}$
 d^{p} *lb.*

lb. oz. dwts.
 $83 : 1 : 10$
 2

<i>s.</i>	<i>d.</i>		166
10	—	$-\frac{1}{2}$	$41 : 10 : —$
3	4	$-\frac{1}{6}$	$13 : 16 : 8$
3	—	$-\frac{1}{10}$	$1 : — : 9$
$\frac{1}{4}$	$-\frac{1}{12}$		$— : 1 : 8\frac{1}{2}$
<i>oz. dwts.</i>			
1	10	$—\frac{1}{8}$	$— : 6 : 8\frac{1}{2}$

$\text{£ } 222 : 15 : 10$ *Ans.*

See Example 696.

lb. oz. dwts.

673. $83 : 1 : 10$, at $\text{£ } 2 : 13 : 7\frac{1}{4}$
 d^{p} *lb.*

$12 \times 7 - 1 = 83$

<i>£</i>	<i>s.</i>	<i>d.</i>
2	13	$7\frac{1}{4}$
12		

32	:	3	:	3
7				

225	:	2	:	9	} <i>Sub.</i>
2	:	13	:	$7\frac{1}{4}$	

<i>oz. dwts.</i>		222	:	9	:	$1\frac{1}{2}$
1	10	$—\frac{1}{8}$:	6	:	$8\frac{1}{2}$

$\text{£ } 222 : 15 : 10$ *Answer.*

See Example 696.

674. 19*lb.*

TICE

Troy Weight. 139

674. lb. oz.
 $19 : 2$, at $\text{£ } 3 : 13 : 11$
 dwt. lb.

lb. oz.
 $19 : 2$
 3

s. d.
 $12 : \text{---} \frac{6}{10} 57$
 $1 : 8 \text{---} \frac{1}{10} 11 : 8 : \text{---}$
 $3 \text{---} \frac{1}{10} \text{---} : 4 : 9$
 $\text{oz. 2} \text{---} \frac{1}{2} \text{---} : 12 : 3\frac{1}{2}$

$\text{£ } 70 : 16 : 8\frac{1}{2} \text{ Answer.}$

See Example 697.

675. lb. oz. dwts.
 $37 : 2 : 8$, at $\text{£ } 3 : 7 : 9$
 dwt. lb.

lb. oz. dwts.
 $37 : 2 : 8$
 3

s. d.
 $6 : 8 \text{---} \frac{1}{10} 111$
 $1 : \text{---} \frac{1}{10} 12 : 6 : 8$
 $1 \text{---} \frac{1}{10} 1 : 17 : \text{---}$
 oz. dwts.
 $2 : 8 \text{---} \frac{1}{10} \text{---} : 3 : 1$
 $\text{---} : 13 : 6\frac{1}{2}$

$\text{£ } 126 : \text{---} : 3\frac{1}{2} \text{ Answer.}$

676. lb. oz.
 $7 : 3$, at $\text{£ } 2 : 19 : 8\frac{1}{2}$
 dwt. lb.

£ s. d.
 $2 : 19 : 8\frac{1}{2}$
 7

oz.
 $3 \text{---} \frac{1}{4} 20 : 17 : 9\frac{1}{2}$
 $\text{---} : 14 : 11$

$\text{£ } 21 : 12 : 8\frac{1}{2} \text{ Answer.}$

677. lb. oz.
 $81 : 4$, at $\text{£ } 3 : 10 : 11$
 dwt. lb.

£ s. d.
 $3 : 10 : 11$
 9

$9 \times 9 = 81$

$31 : 18 : 3$
 9

oz.
 $4 \text{---} \frac{1}{3} 287 : 4 : 3$
 $1 : 3 : 7\frac{1}{2}$

$\text{£ } 288 : 7 : 10\frac{1}{2} \text{ Answer.}$

See Example 698.

678. lb. oz.
 $23 : 6$, at $\text{£ } 3 : \text{---} : 8\frac{1}{2}$
 dwt. lb.

lb. oz.
 $23 : 6$
 3

d.
 $6 \text{---} \frac{1}{10} 69$
 $2 \text{---} \frac{1}{10} \text{---} : 11 : 6$
 $\frac{1}{4} \text{---} \frac{1}{10} \text{---} : 3 : 10$
 $\text{oz. 6} \text{---} \frac{1}{10} \text{---} : \text{---} : 5\frac{1}{2}$
 $1 : 10 : 4$

$\text{£ } 71 : 6 : 1\frac{1}{2} \text{ Answer.}$

See Example 699.

679. oz. dwt.
 $17 : 1$, at $5\text{s. } 7\frac{1}{2}\text{d. dwt. oz.}$

oz. dwt.
 $17 : 1$

s. d.
 $5 : \text{---} \frac{1}{10} 4 : 5 : \text{---}$
 $7\frac{1}{2} \text{---} \frac{1}{10} \text{---} : 10 : 7\frac{1}{2}$
 $\text{dwt. 1} \text{---} \frac{1}{10} \text{---} : \text{---} : 3\frac{1}{2}$

$\text{£ } 4 : 15 : 10\frac{1}{2} \text{ Answer.}$

" Of 5s.

680. 317 oz.

T 2

140 *Troy Weight.*

PRAC.

680. *oz. dwts. gr.*
317 : 1 : 46, at 5s. 9½d.
Ⓕ oz.

oz. dwts. gr.
317 : 1 : 16
s. d.
5 : — — ½ 79 : 5 : —
7½ — ⅛ 9 : 18 : 1½
2 — ⅛ 2 : 12 : 10
dwts. gr.
1 : 16 — ⅛ — : — : 5½
£ 91 : 16 : 5½ *Answer.*

oz. dwts.
681. 37 : 2, at 7s. 9½d. Ⓕ oz.

oz. dwts.
37 : 2
s. d.
6 : 8 — ⅛ 12 : 6 : 8
1 : — — ⅛ 1 : 17 : —
1½ — ⅛ — : 4 : 7½
dwts. 2 — ⅛ — : — : 9½
£ 14 : 9 : — ½ *Answer.*

oz. dwts. gr.
682. 49 : 2 : 12, at 8s. 11½d.
Ⓕ oz.

oz. dwts. gr.
49 : 2 : 12
s. d.
8 : — — ⅛ 19 : 12 : —
8 — ⅛ 1 : 12 : 8
3 — ⅛ — : 12 : 3
½ — ¼ — : 3 : — ½
dwts. gr.
2 : 12 — ½ — : 1 : 1½
£ 22 : 1 : 1 *Answer.*

O R,

oz. dwts. gr.
49 : 2 : 12, at 8s. 11½d. Ⓕ oz.

s. d.
8 : 11½
7 × 7 = 49
7
3 : 2 : 10½
7
dwts. gr.
21 : 19 : 11½
2 : 12 — ⅛ — : 1 : 1½
£ 22 : 1 : 1 *Answer.*

oz. dwts. gr.
683. 79 : 3 : 8, at £ 4 Ⓕ oz.

oz. dwts. gr.
79 : 3 : 8
4
dwts. gr.
3 : 8 — ½ 316
— : 13 : 4
£ 316 : 13 : 4 *Answer.*

oz. dwts.
684. 39 : 4, at £ 3 : 17 : 8 Ⓕ oz.

oz. dwts.
39 : 4
3
s. d.
16 : — — ⅛ 117
1 : 8 — ⅛ 31 : 4 : —
— : 3 : 5 : —
dwts. 4 — ⅛ — : 15 : 6½
£ 152 : 4 : 6½ *Ans.*

685. 7 oz.

TICE.

oz. dwts.
685. 7 : 5, at 81. 9½ d. 49 oz.

$$\begin{array}{r} s. \quad d. \\ 8 : 9\frac{1}{2} \\ 7 \end{array}$$

$$\begin{array}{r} dwts. \\ 5 \dots \frac{1}{4} \left| \begin{array}{l} 3 : 1 : 8\frac{1}{2} \\ \hline : 2 : 2\frac{1}{4} \end{array} \right. \end{array}$$

£ 3 : 3 : 10½ Answer.

oz. dwts. gr.
686. 371 : 6 : 16, at £ 3 : 13 : 9

49 oz.

$$\begin{array}{r} oz. dwts. gr. \\ 371 : 6 : 16 \\ 3 \end{array}$$

$$\begin{array}{r} s. \quad d. \\ 10 : \dots \frac{1}{2} \left| \begin{array}{l} 1113 \\ \hline 185 : 10 : \dots \\ 3 : 4 \dots \frac{1}{8} \quad 61 : 16 : 8 \\ 5 \dots \frac{1}{8} \quad 7 : 14 : 7 \end{array} \right. \\ dwts. gr. \\ 6 : 16 \dots \frac{1}{3} \quad 1 : 4 : 7 \end{array}$$

£ 1369 : 5 : 10 Ans.

oz. dwts.
687. 971 : 10, at £ 3 : 19 : 11½

49 oz.

$$\begin{array}{r} oz. dwts. \\ 971 : 10 \\ 3 \end{array}$$

$$\begin{array}{r} s. \quad d. \\ 18 : \dots \frac{9}{10} \left| \begin{array}{l} 2913 \\ \hline 873 : 18 : \dots \\ 1 : 8 \dots \frac{1}{12} \quad 80 : 18 : 4 \\ 3 \dots \frac{1}{80} \quad 12 : 2 : 9 \\ \frac{3}{4} \dots \frac{1}{4} \quad 3 : \dots 8\frac{1}{4} \\ dwts. 10 \dots \frac{1}{2} \quad 1 : 19 : 11\frac{1}{2} \end{array} \right. \end{array}$$

£ 3884 : 19 : 9 Ans.

See Example 700.

Troy Weight. 141

oz. dwts. gr.
688. 71 : — : 2, at 7½. 10 d.

49 oz.

$$\begin{array}{r} oz. dwts. gr. \\ 71 : \dots \dots 2 \end{array}$$

$$\begin{array}{r} s. \quad d. \\ 6 : 8 \dots \frac{1}{2} \left| \begin{array}{l} 23 : 13 : 4 \\ \hline 1 : \dots \frac{1}{8} \quad 3 : 11 : \dots \\ 2 \dots \frac{1}{8} \quad : 11 : 10 \end{array} \right. \end{array}$$

£ 27 : 16 : 2½ Answer.

$$\begin{array}{r} s. \quad d. \\ 7 : 10 \\ dwts. 1 \dots \frac{1}{2} \left| \begin{array}{l} : 4\frac{1}{2} \\ \hline grs. 2 \dots \frac{1}{12} \quad : \dots \frac{1}{4} \end{array} \right. \end{array}$$

oz. dwts. gr.
689. 87 : — : 3, at 51. 8½ d.

49 oz.

$$\begin{array}{r} oz. dwts. gr. \\ 87 : \dots \dots 3 \end{array}$$

$$\begin{array}{r} s. \quad d. \\ 5 : \dots \frac{1}{4} \left| \begin{array}{l} 21 : 15 : \dots \\ \hline 6 \dots \frac{1}{80} \quad 2 : 3 : 6 \\ 2 \dots \frac{1}{8} \quad : 14 : 6 \\ \frac{1}{2} \dots \frac{1}{4} \quad : 3 : 7\frac{1}{2} \\ : \dots \dots \frac{1}{4} \end{array} \right. \end{array}$$

£ 24 : 16 : 7½ Answer.

$$\begin{array}{r} s. \quad d. \\ 5 : 8\frac{1}{2} \\ dwts. 1 \dots \frac{1}{20} \left| \begin{array}{l} : 3\frac{1}{2} \\ \hline gr. 3 \dots \frac{1}{8} \quad : \dots \frac{1}{4} \end{array} \right. \end{array}$$

690. 317 oz.

142 *Troy Weight.*

690. $\begin{array}{l} \text{oz. dwts. gr.} \\ 317 : - : 4, \text{ at } 7s. 9\frac{1}{2}d. \\ \text{dwt. oz.} \end{array}$

$\begin{array}{l} \text{oz. dwts. gr.} \\ 317 : - : 4 \\ s. d. \\ 6 : 8 - \frac{1}{10} \left| \begin{array}{l} 105 : 13 : 4 \\ 15 : 17 : - \\ 1 : 19 : 7\frac{1}{2} \end{array} \right. \\ 1 : - - \frac{1}{10} \\ 1\frac{1}{2} - \frac{1}{10} \end{array}$

$\text{£ } 123 : 10 : -\frac{1}{2} \text{ Answ.}$

$\begin{array}{l} s. d. \\ 7 : 9\frac{1}{2} \\ \text{dwt. 1} - \frac{1}{10} \left| \begin{array}{l} - : 4\frac{1}{2} \\ - : -\frac{1}{2} \end{array} \right. \\ \text{gr. 4} - \frac{1}{10} \end{array}$

691. $\begin{array}{l} \text{oz. dwts. gr.} \\ 131 : - : 6, \text{ at } \text{£ } 4 \text{ dwt. oz.} \\ 4 \end{array}$

$\begin{array}{l} 524 \\ - : 1 \end{array}$

$\text{£ } 524 : 1 \text{ Answer.}$

$\begin{array}{l} \text{£ } 4 : - : - \\ \text{dwt. 1} - \frac{1}{10} \left| \begin{array}{l} - : 4 : - \\ - : 1 : - \end{array} \right. \\ \text{gr. 6} - \frac{1}{10} \end{array}$

692. $\begin{array}{l} \text{oz. dwts. gr.} \\ 179 : - : 8, \text{ at } \text{£ } 3 : 17 : 8 \\ \text{dwt. oz.} \end{array}$

$\begin{array}{l} \text{oz. dwts. gr.} \\ 179 : - : 8 \\ 3 \\ s. d. \\ 16 : - - \frac{3}{10} \left| \begin{array}{l} 537 \\ 143 : 4 : - \\ 14 : 18 : 4 \\ - : 1 : 3\frac{1}{2} \end{array} \right. \\ 1 : 8 - \frac{1}{10} \end{array}$

$\text{£ } 695 : 3 : 7\frac{1}{2} \text{ Ans.}$

PRACTICE

$\begin{array}{l} \text{£ } 3 : 17 : 8 \\ \text{dwt. 1} - \frac{1}{10} \left| \begin{array}{l} - : 3 : 10\frac{1}{2} \\ - : 1 : 3\frac{1}{2} \end{array} \right. \\ \text{gr. 8} - \frac{1}{10} \end{array}$

693. $\begin{array}{l} \text{oz. dwts. gr.} \\ 7 : - : 12, \text{ at } \text{£ } 3 : 19 : 7 \\ \text{dwt. oz.} \end{array}$

$\text{£ } 3 : 19 : 7$

$\begin{array}{l} 27 : 17 : 1 \\ \text{dwt. 1} - \frac{1}{10} \left| \begin{array}{l} - : 3 : 11\frac{1}{2} \\ - : 1 : 11\frac{1}{2} \end{array} \right. \end{array} \left. \begin{array}{l} \text{not to be} \\ \text{added.} \end{array} \right\}$

$\text{£ } 27 : 19 : -\frac{1}{2} \text{ Answer.}$

694. $\begin{array}{l} \text{oz. dwts. gr.} \\ 187 : 19 : 23, \text{ at } \text{£ } 4 \text{ dwt. oz.} \\ \text{oz.} \end{array}$

$\begin{array}{l} \text{oz. dwts. gr.} \\ 187 : 19 : 23 \\ 4 \end{array}$

$\begin{array}{l} 748 \\ 3 : 19 : 10 \end{array}$

$\text{£ } 751 : 19 : 10 \text{ Answer.}$

$\begin{array}{l} \text{£ } 4 : - : - \\ \text{dwts. gr.} \\ 18 : - - \frac{1}{10} \left| \begin{array}{l} 3 : 12 : - \\ - : 4 : - \\ 12 - \frac{1}{10} : 2 : - \\ 8 - \frac{1}{10} : 1 : 4 \\ 3 - \frac{1}{10} : - : 6 \end{array} \right. \end{array}$

$\text{£ } 3 : 19 : 10$

See Example 701.

695. 6 lb.

695. lb. oz. dwts. gr.
 $6 : 11 : 19 : 23, \text{ at } \text{£} 6 : 7 : 10\frac{1}{2} \text{ } \text{d}^{\text{p}} \text{ lb.}$

oz.	dwts.	gr.
6	—	—
4	—	—
1	—	—
16	—	—
2	—	—
1	—	—
12	—	—
8	—	—
3	—	—

38	:	7	:	3
3	:	3	:	11
2	:	2	:	7
—	:	10	:	7
—	:	8	:	6
—	:	1	:	—
—	:	—	:	6
—	:	—	:	3
—	:	—	:	2
—	:	—	:	—

$\text{£} 44 : 15 : -\frac{1}{2} \text{ Answer.}$

CONTRACTIONS in Troy Weight.

696. lb. oz. dwts.
 $83 : 1 : 10, \text{ at } \text{£} 2 : 13 : 7\frac{1}{2}$
 $\text{d}^{\text{p}} \text{ lb.}$
 $\text{£} 2 : 13 : 7\frac{1}{2}$
 7

$18 : 15 : 2\frac{1}{2}$
 12

oz. dwts.
 $10 : 10 \dots \frac{1}{2} \left\{ \begin{array}{l} 225 : 2 : 9 \\ 2 : 6 : 10\frac{1}{2} \end{array} \right\} \text{Sub.}$
 $\text{£} 222 : 15 : 10\frac{1}{2} \text{ Ans.}$

See Example 671, 672, and 673.

697. lb. oz.
 $19 : 2, \text{ at } \text{£} 3 : 13 : 11 \text{ } \text{d}^{\text{p}} \text{ lb.}$
 $\text{£} 3 : 13 : 11$
 5
 $18 : 9 : 7$
 4

oz.
 $10 \dots \frac{1}{2} \left\{ \begin{array}{l} 73 : 18 : 4 \\ 3 : 1 : 7\frac{1}{2} \end{array} \right\} \text{Subtract.}$
 $\text{£} 70 : 16 : 8\frac{1}{2} \text{ Answer.}$

See Example 674.

698. lb. oz.
 $81 : 4, \text{ at } \text{£} 3 : 10 : 11 \text{ } \text{d}^{\text{p}} \text{ lb.}$
 lb. oz.
 $81 : 4$
 3

s. d.
 $10 : -\frac{1}{2} \left\{ \begin{array}{l} 243 \\ 40 : 10 : - \\ 10 \dots \frac{1}{2} 3 : 7 : 6 \\ 1 \dots \frac{1}{10} - : 6 : 9 \\ \text{oz. } 4 \dots \frac{1}{2} 1 : 3 : 7\frac{1}{2} \end{array} \right\}$

$\text{£} 288 : 7 : 10\frac{1}{2} \text{ Answer.}$

* Of 10 s.

See Example 677.

699. lb. oz.
 $23 : 6, \text{ at } \text{£} 3 : - : 8\frac{1}{2} \text{ } \text{d}^{\text{p}} \text{ lb.}$
 $\text{£} 3 : - : 8\frac{1}{2}$
 $6 \times 4 - \frac{1}{2} = 23\frac{1}{2}$
 $18 : 4 : 1\frac{1}{2}$
 4

lb. oz.
 oz.
 $6 \dots \frac{1}{2} \left\{ \begin{array}{l} 72 : 16 : 6 \text{ the Price of } 24 : - \\ 1 : 10 : 4 \text{ the Price of } - : 6 \end{array} \right\}$
 $\text{£} 71 : 6 : 2 \text{ the Price of } 23 : 6$

See Example 678.

700: 97: oz.

oz. dwts.
700. 971 : 10, at £ 3 : 19 : 11½
 Ⓕ oz.
 oz. dwts.
 971 : 10
 4 £ wanting 971 Farth.

3884
 * 1 : — : 2½ } Subtract

dwt. 3882 : 19 : 9½
10 --½ 1 : 19 : 11½

£ 3884 : 19 : 9 Answer.

971 Farth.

4

242½ d.

12

2 | 0 : 2½

2 | 0

£ 1 : — : 2½*

See Example 687.

oz. dwts. gr.
701. 187 : 19 : 23, at £ 4
 Ⓕ oz.
 lb.
 188
 4

752
 — : — : 2*

£ 751 : 19 : 10 Answer.

* At 4 Pound Ⓕ Ounce, 1 Grain is worth Twopence by Example 694.

See Example 694.

Examples for the Learner's Exercise.

Answer.

What cost 37 : 1, at £ 4 : 17 : 8½ Ⓕ lb.? — £ 151 : 2 : 6½

At £ 3 : 17 : 9 Ⓕ lb. what cost 87 : 1 : 4? — 338 : 12 : —½

At £ 2 : 13 : 7½ Ⓕ lb. what cost 217 : 1 : 6 : 16? 581 : 18 : —½

At £ 3 : 13 : 2½ Ⓕ lb. what cost 71 : 1 : 10? — 260 : 6 : 11½

At £ 2 : 10 : 9 Ⓕ lb. what cost 917 : 2? — 2327 : 6 : 2½

What cost 171 : 2 : 8, at £ 5 : 8 Ⓕ lb.? — 924 : 9 : 7

At £ 3 : 11 : 8 Ⓕ lb. what cost 413 : 3? — 1480 : 16 : 3

What cost 713 : 4, at £ 8 : 7 : 9½ Ⓕ lb.? — 5985 : 6 : 3

What

- lb. oz.
 What cost 817 : 6, at £ 9 : 8 : 2½ d lb. ? — £ 7692 : 3 : 3½
 oz. dwt.
 What cost 917 : 1, at £ 4 : 17 : 2½ d oz. ? — 4457 : 4 : 10½
 oz. dwt. gr.
 At 5s. 10½d. d oz. what cost 197 : 1 : 16 ? — 57 : 17 : 10½
 oz. dwts.
 At 6s. 8d. d oz. what cost 173 : 2 ? — 57 : 14 : —
 oz. dwts. gr.
 What cost 139 : 2 : 12, at 5s. 7½d. d oz. ? — 38 : 19 : 8
 oz. dwts. gr.
 At £ 4 d oz. what cost 871 : 3 : 8 ? — 3484 : 13 : 4
 oz. dwts.
 At 5s. 10½d. d oz. what cost 197 : 4 ? — 57 : 18 : 6½
 oz. dwts.
 If 1 oz. cost 5s. 11d. what cost 927 : 5 ? — 274 : 6 : 2½
 oz. dwts. gr.
 At 5s. 9d. d oz. what cost 729 : 6 : 16 ? — 209 : 13 : 8
 oz. dwts.
 At 5s. 8½d. d oz. what cost 873 : 10 ? — 250 : 4 : 5
 oz. dwts. gr.
 At 5s. 7½d. d oz. what cost 917 : — : 2 ? — 257 : 18 : 1½
 oz. dwts. gr.
 At 5s. 9d. d oz. what cost 313 : — : 3 ? — 89 : 19 : 9½
 oz. dwts. gr.
 At 5s. 8d. d oz. what cost 915 : — : 4 ? — 259 : 5 : —½
 oz. dwts. gr.
 At £ 3 : 19 : 8 d oz. what cost 171 : — : 6 ? — 681 : 3 : 11½
 oz. dwts. gr.
 What cost 913 : — : 8, at 5s. 8½d. d oz. ? — 259 : 12 : 9½
 oz. dwts. gr.
 What cost 179 : — : 12, at 5s. 10½d. d oz. ? — 52 : 11 : 9½
 oz. dwts. gr.
 What cost 379 : 19 : 23, at 5s. 10½d. d oz. ? — 111 : 12 : 5½
 lb. oz. dwts. gr.
 What cost 917 : 11 : 19 : 23, at £ 7 d oz. ? — 6425 : 19 : 11½



P R A C T I C E,

III. *AVOIRDUPOIZE WEIGHT.*

16 Drams	}	make	{	1 Ounce.
16 Ounces				1 Pound.
28 Pounds				1 Quarter of a Hundred.
4 Quarters				1 Hundred.
20 Hundred				1 Ton.

TABLES of aliquot Parts.

I. One Ton the Integer.

C. Qrs. lb.

1	:	—	:	—	is	—	$\frac{1}{20}$
2	:	—	:	—			$\frac{1}{10}$
2	:	2	:	—			$\frac{1}{5}$
2	:	3	:	12			$\frac{1}{7}$
4	:	—	:	—			$\frac{1}{5}$
5	:	—	:	—			$\frac{1}{4}$
10	:	—	:	—			$\frac{1}{2}$

IV. $\frac{1}{4}$ C. or 28 lb. the Integer.*lb. oz.*

3	:	8	—	is	—	$\frac{1}{8}$
4	:	—				$\frac{1}{7}$
7	:	—				$\frac{1}{4}$
14	:	—				$\frac{1}{2}$

II. One Hundred the Integer.

lb.

14	—	is	—	$\frac{1}{7}$
Qrs. 16	—			$\frac{1}{6}$
1 or 28	—			$\frac{1}{4}$
2 or 56	—			$\frac{1}{2}$

oz.

2	—	is	—	$\frac{1}{8}$
4	—			$\frac{1}{4}$
8	—			$\frac{1}{2}$

III. $\frac{1}{2}$ C. or 56 lb. the Integer.*lb.*

7	—	is	—	$\frac{1}{8}$
8	—			$\frac{1}{7}$
Qrs. 14	—			$\frac{1}{4}$
1 or 28	—			$\frac{1}{2}$

VI. One Ounce the Integer.

dr.

2	—	is	—	$\frac{1}{8}$
4	—			$\frac{1}{4}$
8	—			$\frac{1}{2}$

Examples.

Examples.

C. Qrs.
702. 731 : 2, at 17s. 9d. $\frac{1}{2}$ C.

C. Qrs.
731 : 2

s.	d.		
14	—	$\frac{7}{10}$	511 : 14 : —
3	4	$\frac{1}{10}$	121 : 16 : 8
5	—	$\frac{1}{10}$	15 : 4 : 7
Qrs. 2	—	$\frac{1}{2}$	— : 8 : 10 $\frac{1}{2}$

$\underline{\text{L } 649 : 4 : 1\frac{1}{2} \text{ Ans.}}$

C. Qr.
703. 73 : 1, at $\text{L } 3 : 15 : 7$

C. Qr.
73 : 1

s.	d.		
12	—	$\frac{6}{10}$	219
3	4	$\frac{1}{10}$	43 : 16 : —
3	—	$\frac{1}{10}$	12 : 3 : 4
Qr. 1	—	$\frac{1}{2}$	— : 18 : 3
			— : 18 : 10 $\frac{1}{2}$

$\underline{\text{L } 276 : 16 : 5\frac{1}{2} \text{ Ans.}}$

C. Qrs.
704. 731 : 3, at $\text{L } 3 : 18 : 7\frac{1}{2}$

C. Qrs.
731 : 3

s.	d.		
18	—	$\frac{9}{10}$	2193
6	—	$\frac{1}{10}$	657 : 18 : —
1 $\frac{1}{2}$	—	$\frac{1}{10}$	18 : 5 : 6
Qrs. 2	—	$\frac{1}{2}$	4 : 11 : 4 $\frac{1}{2}$
1	—	$\frac{1}{2}$	1 : 19 : 3 $\frac{1}{2}$
			— : 19 : 7 $\frac{1}{2}$

$\underline{\text{L } 2876 : 13 : 10 \text{ Ans.}}$

C. Qrs. lb.
705. 37 : — : 16, at $\text{L } 3 : 17 : 9$

C.
 $\text{L } 3 : 17 : 9$

		4
15	11	—
		9

lb. 139 : 19 : —
3 : 17 : 9
16 — : 11 : 1 $\frac{1}{2}$

$\underline{\text{L } 144 : 7 : 10\frac{1}{2} \text{ Ans.}}$

C. Qr. lb.
706. 713 : 1 : 16, at $\text{L } 4 : 17 : 11$

C. Qr. lb.
713 : 1 : 16

s.	d.		
16	—	$\frac{8}{10}$	2852
1	8	$\frac{1}{10}$	570 : 8 : —
3	—	$\frac{1}{10}$	59 : 8 : 4
Qr. lb.		$\frac{1}{2}$	8 : 18 : 3
1	—	$\frac{1}{2}$	1 : 4 : 5 $\frac{1}{2}$
16	—	$\frac{1}{2}$	— : 13 : 11 $\frac{1}{2}$

$\underline{\text{L } 3492 : 13 : —\frac{1}{2} \text{ Ans.}}$

C. Qrs. lb.
707. 123 : — : 24, at $\text{L } 7 : 18 : 3\frac{1}{2}$

C. Qrs. lb.
123 : — : 24

s.	d.		
18	—	$\frac{9}{10}$	861
3	—	$\frac{1}{10}$	110 : 14 : —
1 $\frac{1}{2}$	—	$\frac{1}{10}$	1 : 10 : 9
lb. 16	—	$\frac{1}{2}$	— : 2 : 6 $\frac{1}{2}$
8	—	$\frac{1}{2}$	1 : 2 : 7 $\frac{1}{2}$
			— : 11 : 3 $\frac{1}{2}$

$\underline{\text{L } 975 : 1 : 2\frac{1}{2} \text{ Ans.}}$

C. Qrs. lb.
708. 37 : 2 : 14, at £7 : 10 : 9½
C.

C. Qrs. lb.
37 : 2 : 14
7

<i>s. d.</i>	259	
10 : ---	18 : 10 : ---	
6 : ---	18 : 6	
3 : ---	9 : 3	
1 : ---	9½	

Qrs. lb.
2 : --- 3 : 15 : 4½
14 : --- 18 : 10

£ 283 : 12 : 8½ *Ans.*

C. Qrs. lb.
709. 79 : --- : 14, at £2 : 13 : 9½
C.

C. Qrs. lb.
79 : --- : 14
2

<i>s. d.</i>	158	
12 : ---	47 : 8 : ---	
1 : 8 : ---	6 : 11 : 8	
1 : ---	6 : 7	
1 : ---	1 : 7½	
lb. 14 : ---	6 : 8½	

£ 212 : 14 : 7½ *Ans.*

See Example 778.

C. Qrs. lb.
710. 79 : --- : 21, at £1 : 5 : 10
C.

s. d. 79 C.
3 : 4 : --- 13 : 3 : 4
2 : 6 : --- 9 : 17 : 6
lb. 14 : --- 3 : 2½
7 : --- 1 : 7½

£ 102 : 5 : 8 *Answer.*

C. Qrs. lb.
711. 37 : 3 : 21, at £1 : 17 : 4
C.

s. d. 37 C.
14 : --- 78 25 : 18 : ---
3 : 4 : --- 6 : 3 : 4
Qrs. lb.
2 : --- 18 : 8
1 : --- 9 : 4
14 : --- 4 : 8
7 : --- 2 : 4

£ 70 : 16 : 4 *Answer.*

See Example 779.

C. Qrs. lb.
712. 107 : --- : 20, at £2 : 14 : 4
C.

C. Qrs. lb.
107 : --- : 20
2

<i>s. d.</i>	214	
14 : ---	74 : 18 : ---	
4 : ---	1 : 15 : 8	
lb. 16 : ---	7 : 9	
4 : ---	1 : 11½	

£ 291 : 3 : 4½ *Ans.*

C. Qrs. lb.
713. 175 : --- : 18, at 9s. 7½d.
C.

C. Qrs. lb.
175 : --- : 18

<i>s. d.</i>	52 : 10 : ---
6 : ---	29 : 3 : 4
3 : 4 : ---	2 : 3 : 9
3 : ---	3 : 7½
lb. 16 : ---	1 : 4½
2 : ---	2

£ 84 : 2 : 3 *Answer.*

714. 71 C.

TICE.

C. Qrs. lb.
714. 71 : — : 12, at 36s. 9d.

Qrs. C.
s. d. 71 G.
16 : — : $\frac{3}{10}$ 56 : 16 : —
6 : $\frac{1}{20}$: — : 1 : 15 : 6
3 : $\frac{1}{2}$: — : 17 : 9
— : — : 3 : 11 $\frac{1}{4}$ *
£ 130 : 13 : 2 $\frac{1}{4}$ Answer.

s. 36 : 9d.
lb.
16 : — : $\frac{1}{4}$ 5 : 3 : —
4 : — : $\frac{1}{4}$ 1 : 3 $\frac{1}{4}$ } Subtract.
— : — : — : — : —
12 : — : — : — : —
s. 3 : 11 $\frac{1}{4}$ *

C. Qrs. lb.
715. 12 : 2 : 12, at £ 1 : 17 : 4

Qrs. C.
£ 1 : 17 : 4
12

Qrs. lb.
2 : — : $\frac{1}{10}$ 22 : 8 : —
8 : — : $\frac{1}{10}$ — : 18 : 8
4 : — : $\frac{1}{10}$ — : 2 : 8
— : — : — : — : 1 : 4
£ 23 : 10 : 8 Answer.

C. Qr. lb.
716. 17 : 1 : 12, at 39s. 8d.

Qrs. C.
s. d. 17 C.
18 : — : $\frac{2}{10}$ 15 : 6 : —
1 : 8 : $\frac{1}{10}$ 1 : 8 : 4
Qrs. lb.
1 : — : $\frac{1}{4}$ — : 9 : 11
7 : — : $\frac{1}{4}$ — : 2 : 5 $\frac{1}{4}$
4 : — : $\frac{1}{4}$ — : 1 : 5
1 : — : $\frac{1}{4}$ — : — : 4 $\frac{1}{4}$
£ 34 : 8 : 6 Answer.

Avoir du poize Weight. 149

C. Qrs. lb.
717. 17 : — : 8, at £ 3 : 3 : 10 $\frac{1}{2}$

Qrs. C.
C. Qrs. lb.
17 : — : 8
3
s. d. 51
3 : 4 : $\frac{1}{10}$ 2 : 16 : 8
6 : $\frac{1}{10}$: — : 8 : 6
 $\frac{1}{2}$: $\frac{1}{10}$: — : — : 8 $\frac{1}{2}$
— : — : 4 : 6 $\frac{1}{4}$ *
£ 54 : 10 : 5 $\frac{1}{2}$ Answer.

lb. £ 3 : 3 : 10 $\frac{1}{2}$
16 : — : $\frac{1}{4}$ — : 9 : 1 $\frac{1}{2}$
8 : — : $\frac{1}{2}$ — : 4 : 6 $\frac{1}{4}$ *

C. Qrs. lb.
718. 23 : 3 : 8, at 79s. 11d.

Qrs. C.
C. Qrs. lb.
23 : 3 : 8
3
s. d. 69
18 : — : $\frac{9}{10}$ 20 : 14 : —
1 : 8 : $\frac{1}{10}$ 1 : 18 : 4
3 : $\frac{1}{10}$: — : 5 : 9
Qrs. lb.
2 : — : $\frac{1}{10}$ 1 : 19 : 11 $\frac{1}{2}$
1 : — : $\frac{1}{10}$ — : 19 : 11 $\frac{1}{2}$
8 : $\frac{1}{10}$: — : 5 : 8 $\frac{1}{2}$
£ 95 : 3 : 8 $\frac{1}{2}$ Answer.

See Example 780.

C. Qrs. lb.
719. 7 : 2 : 10, at £ 1 : 17 : 8

Qrs. C.
£ 1 : 17 : 8
7
Qrs. lb.
2 : — : $\frac{1}{10}$ 13 : 3 : 8
8 : $\frac{1}{10}$: — : 18 : 10
2 : $\frac{1}{10}$: — : 2 : 8 $\frac{1}{2}$
— : — : — : — : 8
£ 14 : 5 : 10 $\frac{1}{2}$ Answer.

720. 39 C.

350 Avoirdupoise Weight,

C. Qrs. lb.

720. 39 : — : 10, at £ 1 : 17 : 10

☞ C.

s.	d.	39 C.
14 : —	—	27 : 6 : —
3 : 4	—	6 : 10 : —
6	—	— : 19 : 6
		— : 3 : 4½*

£ 73 : 18 : 10½ *Anfw.*

£ s. d.
1 : 17 : 10

lb.	16	8	2	10	
	—	—	—	—	£ — : 3 : 4½*
	—	—	—	—	
	—	—	—	—	

Add.

C. Qrs. lb.

721. 91 : 1 : 4, at £ 3 : — : 8

☞ C.

C. Qrs. lb.

91 : 1 : 4
3

d.	8	1	4
Qrs. lb.	—	—	—
	—	—	—
	—	—	—

£ 276 : 18 : — *Answer.*

C. Qrs. lb.

722. 47 : — : 4, at £ 7 : 17

☞ C.

C. Qrs. lb.

47 : — : 4
7

s.	d.	329
7 : —	—	16 : 9 : —
10 : —	—	23 : 10 : —
		— : 5 : 7½*

£ 369 : 4 : 7½ *Anf.*

* Of 7l.

PRAC.

lb.	16	4
	—	—
	—	—
	—	—

C. Qrs. lb.

723. 31 : 3 : 2, at £ 4 : 16 : 3½

☞ C.

C. Qrs. lb.

31 : 3 : 2
4

s.	d.	124
16 : —	—	24 : 16 : —
3 : —	—	— : 7 : 9
—	—	— : 1 : 3½
Qrs. lb.	2 : —	2 : 8 : 1½
	1 : —	1 : 4 : —
	2 : —	— : 1 : 8½*

£ 152 : 18 : 11½ *Anf.*

lb.	16	2
	—	—
	—	—
	—	—

C. Qrs. lb.

724. 71 : 1 : 1, at £ 5 : 15 : 7

☞ C.

C. Qrs. lb.

71 : 1 : 1
5

s.	d.	355
12 : —	—	42 : 12 : —
3 : 4	—	11 : 16 : 8
—	—	— : 17 : 9
Qrs. lb.	1 : —	1 : 8 : 10½
	1 : —	— : 1 : —

£ 411 : 16 : 4 *Anfw.*

lb.	16	2	1
	—	—	—
	—	—	—
	—	—	—

725. 14 C.

TICE.

C. Qrs. lb.
725. 14 : — : 3, at £ 4 : 9 : 7

Qr. C.
£ 4 : 9 : 7
7

31 : 7 : 1
2

62 : 14 : 2
— : 2 : 4½ *

£ 62 : 16 : 6½ Answer.

lb. £ 4 : 9 : 7
16 --- ¼ --- : 12 : 9½
2 --- ½ --- : 1 : 7
1 --- ½ --- : — : 9½ } Add.
3 --- : 2 : 4½ *

C. Qrs. lb.
726. 37 : — : 5, at £ 3 : 19 : 7

Qr. C.
C. Qrs. lb.
37 : — : 5
3

s. d. 111
16 : — --- ⅓ --- 29 : 12 : —
3 : 4 --- ⅓ --- 6 : 3 : 4
3 --- ⅓ --- : 9 : 3
lb. 5 --- : 3 : 6½ *

£ 147 : 8 : 1½ Ans.

lb. £ 3 : 19 : 7
16 --- ¼ --- : 11 : 4½
4 --- ½ --- : 2 : 10
1 --- ½ --- : — : 8½ } Add.
5 --- : 3 : 6½ *

Avoirdupois Weight. 151

C. Qrs. lb.
727. 7 : 1 : 5, at 17s. 9d.

Qr. C.
s. d.
17 : 9
7

Qr. lb. 6 : 4 : 3
1 : — --- ¼ --- : 4 : 5½
4 --- ½ --- : — : 7½
1 --- ½ --- : — : 14

£ 6 : 9 : 5½ Answer.

C. Qrs. lb.
728. 137 : — : 6, at £ 1 : 17 : 3

Qr. C.
s. d. C.
16 : — --- ⅓ --- 137 : — : —
1 : — --- ⅓ --- 109 : 12 : —
3 --- ⅓ --- 6 : 17 : —
lb. 6 --- : 1 : 14 : 3
— : 2 : — *

£ 255 : 5 : 3 Answer.

£ s. d.
1 : 17 : 3
lb. 16 --- ¾ --- : 5 : 3½
8 --- ¾ --- : 2 : 7½
2 --- ¾ --- : — : 7½ } Sub.
6 --- : 2 : — *

152 *Avoirdupoize Weight.*

PRAC.

729. *C. Qrs. lb.*
47 : 3 : 6, at £ 3 : 13 : 10

C.
C. Qrs. lb.
47 : 3 : 6
3

<i>s. d.</i>	141	
10:---	23 : 10 : -	
3: 4:--	7 : 16 : 8	
6:--	1 : 3 : 6	
<i>Qrs. lb.</i>		
2:--	1 : 16 : 11	
1:--	-- : 18 : 5 $\frac{1}{2}$	
6:--	-- : 3 : 11 $\frac{1}{2}$	

£ 176 : 9 : 6 *Ans.*

<i>lb.</i>	£ 3 : 13 : 10	
16:--	-- : 10 : 6 $\frac{1}{2}$	
8:--	-- : 5 : 3 $\frac{1}{4}$	} <i>Sub.</i>
2:--	-- : 1 : 3 $\frac{1}{4}$	
6:--	-- : 3 : 11 $\frac{1}{2}$	

730. *C. Qrs. lb.*
47 : -- : 9, at £ 7 : 14 : 5

C.
C. Qrs. lb.
47 : -- : 9
7

<i>s. d.</i>	329	
14:--	32 : 18 : -	
4:--	-- : 15 : 8	
1:--	-- : 3 : 11	
<i>lb. 9</i>	-- : 12 : 4 $\frac{1}{2}$	

£ 363 : 9 : 11 $\frac{1}{2}$ *Ans.*

<i>lb.</i>	£ 7 : 14 : 5	
16:--	1 : 2 : -	
8:--	-- : 11 : -	} <i>Add.</i>
1:--	-- : 1 : 4 $\frac{1}{2}$	
9:--	-- : 12 : 4 $\frac{1}{2}$	

731. *C. Qrs. lb.*
17 : 3 : 9, at £ 8 : 17 : 11

C.
C. Qrs. lb.
17 : 3 : 9
8

<i>s. d.</i>	136	
16:--	13 : 12 : -	
1: 8:--	1 : 8 : 4	
3:--	-- : 4 : 3	
<i>Qrs. lb.</i>		
2:--	4 : 8 : 11 $\frac{1}{2}$	
1:--	2 : 4 : 5 $\frac{1}{4}$	
8:--	-- : 12 : 8 $\frac{1}{2}$	
1:--	-- : 1 : 7	

£ 158 : 12 : 3 $\frac{1}{2}$ *Ans.*

732. *C. Qrs. lb.*
31 : -- : 11, at 21s. 11 $\frac{1}{2}$ d.

C.
C.
s. d. 31
1: 8:-- 2: 11 : 8
3:-- 7 : 9
 $\frac{1}{2}$ 1 : 3 $\frac{1}{2}$
lb. 11 -- 2 : 1 $\frac{1}{2}$

£ 34 : 2 : 10 *Answer.*

<i>s. d.</i>	21 : 11 $\frac{1}{2}$	
<i>lb.</i>	5 : 5 $\frac{1}{2}$	
28:--	1 : 4 $\frac{1}{2}$	} <i>Add.</i>
7:--	-- : 9 $\frac{1}{2}$	
4:--	2 : 1 $\frac{1}{2}$	
11:--	-- : 11 $\frac{1}{2}$	

733. 19 C.

TICEI

733. C. *Qrs. lb.* 19 : 1 : 11, at 79 11 1/2 d.

⌘ C.

C. *Qrs. lb.*

19 : 1 : 11

3

s.	d.	57	17 : 2 : —
18	—	10	1 : 11 : 8
1	8	10	— : 4 : 9
3	—	10	— : 1 : 2 1/2
1/2	1/4	—	— : — : —
Qrs. lb.			
1	—	1/2	— : 19 : 11 1/2
7	—	1/2	— : 4 : 11 1/2
4	—	1/2	— : 2 : 10 1/2

£ 77 : 7 : 5 *Ans.*

See Example 781.

C. *Qrs. lb.*

734. 39 : — : 13, at £ 17 : 15 : — 1/2

⌘ C.

C. *Qrs. lb.*

39 : — : 13

17

s.	d.	273	27 : 6 : —
14	—	39	1 : 6 : —
8	—	10	— : 13 : —
4	—	10	— : 1 : 7 1/2
1/2	1/8	—	— : 2 : 1 : 2 1/2
lb. 13	—	—	—

£ 694 : 7 : 9 1/2 *Ans.*

£	s.	d.	
17	15	—	1/2
16	—	2	10 : 8 1/2
8	—	1	5 : 4 1/2
4	—	—	12 : 8
1	—	—	3 : 2
13	—	2	1 : 2 1/2

} *Add.*

Avoir du poize Weight 153

C. *Qrs. lb.*

735. 39 : 2 : 13, at £ 19 : 13 : 8 1/2

⌘ C.

C. *Qrs. lb.*

39 : 2 : 13

19

s.	d.	351	23 : 8 : —
12	—	39	1 : 19 : —
1	—	10	— : 19 : 6
6	—	10	— : 6 : 6
2	—	10	— : — : 9 1/2
1/2	1/8	—	— : — : —
Qrs. lb.			
2	—	1/2	9 : 16 : 10
8	—	1/2	1 : 8 : 1 1/2
4	—	1/2	— : 14 : — 1/2
1	—	1/2	— : 3 : 6

£ 779 : 16 : 3 1/2 *Ans.*

See Example 782.

C. *Qrs. lb.*

736. 87 : — : 15, at £ 18 : 18 : 7 1/2

⌘ C.

C. *Qrs. lb.*

87 : — : 15

6

s.	d.	522	6 × 3 = 18
18	—	3	
6	—	10	78 : 6 : —
1	—	10	2 : 3 : 6
1/2	1/8	—	— : 7 : 3
1/4	1/4	—	— : 1 : 9 1/2
lb. 15	—	—	2 : 10 : 8 1/2

£ 1649 : 9 : 3 *Ans.*

£	s.	d.	
18	18	—	7 1/2
56	—	1/2	9 : 9 : 3 1/2
8	—	1/2	1 : 7 : — 1/2
7	—	1/8	1 : 3 : 7 1/2
15	—	—	2 : 10 : 8 1/2

} *Add.*

737. 81 C.

C. Qrs. lb.

737. 181 : 3 : 15, at £ 1 : 17 : 6

☞ C.

s.	d.	81 C.
16	—	64 : 16 : —
1	—	4 : 1 : —
6	—	2 : — : 6

Qrs. lb.		
2	—	18 : 9
1	—	9 : 4½
8	—	2 : 8
7	—	2 : 4

£ 153 : 10 : 7½ *Ans.*

C. Qrs. lb.

758. 31 : — : 17, at £ 3 : 5 : 9

☞ C.

C. Qrs. lb.

31 : — : 17
3

s.	d.	13
5	—	7 : 15 : —
6	—	15 : 6
3	—	7 : 9
lb. 14	—	8 : 2½
2	—	1 : 2
1	—	— : 7

£ 102 : 8 : 2½ *Answer.*

C. Qrs. lb.

759. 28 : 2 : 17, at £ 2 : 19 : 4½

☞ C.

C. Qrs. lb.

28 : 2 : 17

2

s.	d.	56
18	—	25 : 4 : —
1	—	1 : 8 : —
4	—	9 : 4
1	—	1 : 2
1	—	— : 7

Qrs. lb.		
2	—	1 : 9 : 8½
14	—	7 : 5
2	—	1 : —
1	—	— : 6½

£ 85 : 1 : 9 *Ans.*

C. Qrs. lb.

740. 23 : — : 19, at £ 7 : 14 : 3½

☞ C.

C. Qrs. lb.

23 : — : 19

7

s.	d.	161
14	—	16 : 2 : —
3	—	5 : 9
1	—	— : 11½
lb. 10	—	1 : 2 : —
2	—	2 : 9
1	—	1 : 4½

£ 178 : 14 : 10½ *Ans.*

TICE.

C. Qrs. lb.
741. 15 : 3 : 22, at £7 : 15 : 2½
C.
£7 : 15 : 2½

5 × 3 = 15
38 : 15 : 11½
3

Qrs. lb.
2 : — : 116 : 7 : 9½
1 : — : 3 : 17 : 7
16 : — : 1 : 18 : 9½
4 : — : 1 : 2 : 2
2 : — : — : 5 : 6½
2 : — : — : 2 : 9½

£ 123 : 14 : 8 Answer.

C. Qrs. lb.
742. 3 : — : 22, at £7 : 19 : 11
C.
£7 : 19 : 11
3

lb.
16 : — : 23 : 19 : 9
4 : — : 1 : 2 : 10
2 : — : — : 5 : 8½
2 : — : — : 2 : 10½

£ 25 : 11 : 1½ Answer.

C. Qrs. lb.
743. 14 : — : 23, at £9 : 7 : 8
C.

7 × 2 = 14
£9 : 7 : 8
65 : 13 : 8
2

lb.
14 : — : 131 : 7 : 4
7 : — : 1 : 3 : 5
2 : — : — : 11 : 8
2 : — : — : 3 : 4

£ 133 : 5 : 10½ Answer.

* Of 14 lb.

Avoirdupois Weight. 155

C. Qrs. lb.
744. 17 : 1 : 23, at £1 : 17 : 6
C.
£1 : 17 : 6
4

7 : 10 : —
4 × 4 + 1 = 17 4

Qrs. lb.
1 : — : 30 : — : —
1 : — : 1 : 17 : 6
14 : — : — : 9 : 4½
7 : — : — : 4 : 8½
2 : — : — : 2 : 4
2 : — : — : — : 8

£ 32 : 14 : 6½ Answer.

C. Qrs. lb.
745. 57 : 3 : 25, at £7 : 19 : 3½
C.
£7 : 19 : 3½
8

63 : 14 : 2
7

Qrs. lb.
2 : — : 445 : 19 : 2
1 : — : 7 : 19 : 3½
16 : — : 3 : 19 : 7½
8 : — : 1 : 19 : 9½
1 : — : 1 : 2 : 9
1 : — : — : 11 : 4½
1 : — : — : 1 : 5

£ 461 : 13 : 5 Answer.

C. Qrs. lb.
746. 7 : 1 : 26, at £3 : 15 : 10
C.
£3 : 15 : 10
7

Qrs. lb.
1 : — : 26 : 10 : 10
1 : — : — : 18 : 11½
16 : — : — : 10 : 10
8 : — : — : 5 : 5
2 : — : — : 1 : 4½

£ 28 : 7 : 4½ Answer.

747. 171 C.

X 2

C. Qrs. lb.

747. 171 : 3 : 27- at 74s. 8d.

⌘ C.

C. Qrs. lb.

171 : 3 : 27

3

s.	d.	
14	---	7
8	---	30
2	---	1
1	---	16
	---	8
	---	2
	---	1

£ 642 : 2 : - Ans.

748. 25 lb. at 67s. ⌘ C.

67s.

lb.		
16	---	9
8	---	4
1	---	7

s. 14 : 11 Answer.

749. 27 lb. at 45s. ⌘ C.

45s.

lb.		
16	---	6
8	---	3
2	---	9
1	---	4

s. 10 : 9½ Answer.

C. Qrs. lb.

750. 17 Hogsheads, each 5 : 2 : 8, at £ 1 : 12 : 7 ⌘ C.

3

16 : 2 : 24
6

3 × 6 = 17

100 : 1 : 4 } Subtract.
5 : 2 : 8

s.	d.	
12	---	6
6	---	10
1	---	6
2	---	1
	---	16
	---	8

£ 154 : 6 : 1 Answer.

TICE.

Tons. C. Qrs.

751. 79 : 17 : 3, at £17 : 15 : 10
 ⚡ Ton.

Tons. C. Qrs.

79 : 17 : 3
 17

s.	d.	
10	—	553
5	—	79
10	—	39 : 10 : —
C. Qrs.		19 : 15 : —
10	—	3 : 5 : 10
10	—	8 : 17 : 11
5	—	4 : 8 : 11
2	2	2 : 4 : 5
1	†	— : 4 : 5

£1421 : 6 : 7½ Ans.

* Of 5 C. † Of 2 Qrs. 2 lb.

Avoirdupois Weight. 157

Tons. C. Qrs.

752. 37 : 19 : 3, at £19 : 19 : 2
 ⚡ Ton.

Tons. C. Qrs.

37 : 19 : 3
 19

s.	d.	
10	—	333
5	—	37
19	—	703 { the Price of 37 Tons
C. Qrs.		35 : 3 : —
10	—	— : 6 : 2
5	—	9 : 19 : 7
4	—	4 : 19 : 9½
2	—	3 : 19 : 10
1	—	— : 9 : 11½
		— : 4 : 11½

£758 : 3 : 4 Ans.

* Of 19 lb.

Tons. C. Qrs. lb.

753. 7 : 13 : 3 : 19, at £14 : 17 : 9 ⚡ Ton.

£. s. d.
 14 : 17 : 9
 7

C. Qrs. lb.	
10	— : — : —
2	2 : — : —
1	1 : — : —
16	— : — : —
2	— : — : —
1	— : — : —
104	4 : 3
7	8 : 10½
1	17 : 2½
—	18 : 7½
2	2 : 6½
—	5 : 3½
—	2 : 7½

£116 : 19 : 5 Answer.

754. 17 Tons

754. Tons. C. Qrs. lb. 17 : 3 : — : 21, at £ 25 p^{r} Ton.

Tons. C. Qrs. lb.

17 : 3 : — : 21

$5 \times 5 = 25$

$$\begin{array}{r} 5 \\ 85 \\ 5 \end{array}$$

C.	Qrs.	lb.
2	—	—
1	—	—
—	—	14
—	—	7

£ 428 : 19 : 8 $\frac{1}{2}$ Answer.

755. lb. oz. s. d. 3 : 8, at 1 : 3 $\frac{1}{2}$ p^{r} oz.

oz.	s.	d.
3	10	$\frac{1}{2}$
8	—	7 $\frac{1}{4}$

s. 4 : 6 $\frac{1}{2}$ Answer.

756. lb. oz. s. d. 7 : 4, at 2 : 9 p^{r} lb.

oz.	s.	d.
19	3	—
4	—	8 $\frac{1}{4}$

s. 19 : 11 $\frac{1}{4}$ Answer.

757. lb. oz. s. d. 14 : 2, at 17 : 11 $\frac{1}{4}$ p^{r} lb.

lb.	oz.	s.	d.
6	5	6	$\frac{1}{2}$
—	—	—	2

oz.	s.	d.
12	11	1 $\frac{1}{2}$
2	—	2 : 2 $\frac{1}{2}$

£ 12 : 13 : 4 $\frac{1}{2}$ Answer.

758. lb. oz. 179 : 1, at £ 3 : 17 : 8

lb.	oz.
179	1
—	3

s.	d.
16	—
1	8

£ 695 : 7 : 2 $\frac{1}{2}$ Ans.

£	s.	d.
3	17	8
—	—	9 : 8 $\frac{1}{2}$
—	—	4 : 10 $\frac{1}{4}$

759. lb. oz. 137 : 13, at 16 d. p^{r} lb.

s.	d.
1	—
4	—
8	—
4	—
1	—

£ 9 : 3 : 9 Answer.

760 197 lb.

TICE.

760. *lb. oz.* 197 : 15, at 2s. 8d. d^{p} *lb.*

<i>s.</i>	<i>d.</i>	<i>lb.</i>	<i>oz.</i>
2	6	197	15
2	1	24	12
2	1	1	12
oz.	8	—	1
4	—	—	—
2	—	—	—
1	—	—	—

£ 26 : 7 : 10 *Answer.*

761. *lb. oz. dr.* 75 : 7 : 8, at 17s. 9d. d^{p}

<i>s.</i>	<i>d.</i>	<i>lb.</i>	<i>oz.</i>	<i>dr.</i>
16	—	75	7	8
1	8	60	—	—
1	—	6	5	—
oz.	dr.	—	6	3
4	—	—	4	5
2	—	—	2	2
1	—	—	1	1
8	—	—	—	6

£ 66 : 19 : 6 $\frac{1}{2}$ *Answer.*

762. *lb. oz. dr.* 3 : 15 : 12, at 6s. 10d. d^{p}

<i>s.</i>	<i>d.</i>	<i>lb.</i>	<i>oz.</i>	<i>dr.</i>
6	10	3	15	12
1	—	1	—	6
8	—	—	3	5
4	—	—	1	8
2	—	—	—	10
1	—	—	—	5
8	—	—	—	2
4	—	—	—	1

£ 1 : 7 : 2 $\frac{1}{2}$ *Answer.*

Avoirdupois Weight. 159

763. *oz. dr.* 7 : 15, at 1s. 7d. d^{p} *oz.*

<i>s.</i>	<i>d.</i>	<i>oz.</i>	<i>dr.</i>
1	7	7	15
11	—	—	—
8	—	—	9
4	—	—	4
2	—	—	2
1	—	—	1

s. 12 : 6 $\frac{1}{2}$ *Answer.*

764. *oz. dr.* 15 : 15, at 5s. 4d. d^{p} *lb.*

<i>s.</i>	<i>d.</i>	<i>oz.</i>	<i>dr.</i>
5	4	15	15
4	—	1	4
4	—	1	4
4	—	1	4
2	—	—	8
1	—	—	4
4	—	—	1
4	—	—	1
4	—	—	1
2	—	—	—
1	—	—	—

s. 5 : 3 $\frac{1}{2}$ *Answer.*

TO reduce Hundreds into Pounds, easier and more safe than the common way.

R U L E.

Set the given Hundreds down four several Times, thus, twice with Units under Units, &c. then again with Units in the Place of Tens, and again with Units in the Place of Hundreds; lastly, add these four Lines together, their Sum will be the Answer.

Examples.

765. Reduce 13 C. into lb.

$$\begin{array}{r}
 13 \\
 13 \\
 13 \\
 13 \\
 \hline
 \text{lb. } 1456 \text{ Answer.}
 \end{array}$$

766. Reduce 8 C. into lb.

$$\begin{array}{r}
 8 \\
 8 \\
 8 \\
 8 \\
 \hline
 \text{lb. } 896 \text{ Answer.}
 \end{array}$$

The Reason of the above Operations may be easily understood, by multiplying the given C. by the Number of lb. contained in 1 C. viz. 112.

767. 13 C.

$$\begin{array}{r}
 112 \\
 26 \\
 13 \\
 13 \\
 \hline
 \text{lb. } 1456 \text{ Answer.}
 \end{array}$$

768. 8 C.

$$\begin{array}{r}
 112 \\
 16 \\
 8 \\
 8 \\
 \hline
 \text{lb. } 896 \text{ Answer.}
 \end{array}$$

WHEN Hundreds and Quarters are given.

R U L E.

Set down the Hundreds as before, and place the Pounds contained in the Quarters underneath or above, in their proper Columns, which being added with the rest, will give the Answer.

Examples.

769. Reduce 13 C. 2 Qrs. into lb.

$$\begin{array}{r}
 13 \\
 13 \text{ Qrs.} \\
 13 \quad 2 \times 28 = 56 \\
 1356 \\
 \hline
 \text{lb. } 1512 \text{ Answer.}
 \end{array}$$

770. Reduce 8 C. 3 Qrs. into lb.

$$\begin{array}{r}
 84 \\
 8 \text{ Qrs.} \\
 888 \quad 3 \times 28 = 84 \\
 \hline
 \text{lb. } 980 \text{ Answer.}
 \end{array}$$

WHEN Hundreds, Quarters, and Pounds are given.

R U L E.

Proceed with the Hundreds as before, reduce the given Quarters into Pounds as above, to which add the given Pounds, that Sum added with the rest will give the Answer.

Examples.

771. *C. Qrs. lb.*
 Reduce 13 : 2 : 7 into lb.

$$\begin{array}{r} 13 \\ 13 \\ 13 \\ 1363 \\ \hline \text{lb. } 1519 \text{ Answer.} \end{array}$$

772. *C. Qrs. lb.*
 Reduce 8 : 3 : 27 into lb.

$$\begin{array}{r} 111 \\ 8 \\ 888 \\ 3 : 27 = 111 \\ \hline 1007 \text{ Answer.} \end{array}$$

WHEN Hundreds and Pounds are given.

R U L E.

Proceed with the Hundreds as before, add the given Pounds with the rest of the Work, their Sum will be the Answer.

Examples.

773. *C. Qrs. lb.*
 Reduce 13 : — : 7 into lb.

$$\begin{array}{r} 13 \\ 13 \\ 13 \\ 1307 \\ \hline \text{lb. } 1463 \text{ Answer.} \end{array}$$

774. *C. Qrs. lb.*
 Reduce 8 : — : 27 into lb.

$$\begin{array}{r} 8 \\ 888 \\ 27 \\ \hline \text{lb. } 923 \text{ Answer.} \end{array}$$

775. 79 C. at $4\frac{1}{2}$ d. d. lb.

$$\begin{array}{r} 79 \\ 79 \\ 79 \\ 79 \end{array}$$

8848 lb. at $4\frac{1}{2}$ d. d. lb.

d. $\begin{array}{l} 3 \text{ -- } \frac{3}{10} \\ 1 \text{ -- } \frac{1}{10} \\ \frac{1}{4} \text{ -- } \frac{1}{4} \end{array}$ $\begin{array}{l} 110 : 12 : — \\ 36 : 17 : 4 \\ 9 : 4 : 4 \end{array}$

$\text{L } 156 : 13 : 8 \text{ Answer.}$

776. 73 : 3 : 27, at $11\frac{1}{2}$ d. d. lb.

$$\begin{array}{r} 111 \\ 73 \\ 73 \\ 73 \\ 73 \end{array}$$

8287 lb. at $11\frac{1}{2}$ d. d. lb.

d. $\begin{array}{l} 8 \text{ -- } \frac{1}{10} \\ 3 \text{ -- } \frac{1}{10} \\ \frac{1}{4} \text{ -- } \frac{1}{4} \end{array}$ $\begin{array}{l} 276 : 4 : 8 \\ 103 : 11 : 9 \\ 25 : 17 : 11\frac{1}{2} \end{array}$

$\text{L } 405 : 14 : 4\frac{1}{2} \text{ Answer.}$

777. 8731 lb.

777.

lb. £ s. d.
8731, at 5 : 15 : 8 d^{p} C.

$$\begin{array}{r} \text{lb.} \quad \text{lb.} \quad \text{Qrs.} \\ 28 \overline{) 8731} \quad (311 \\ \underline{84} \\ 33 \text{ C. } 77 : 3 : 23 \\ \underline{28} \\ 51 \\ \underline{28} \\ 23 \text{ lb.} \end{array}$$

By Reduction bring
8731 lb. into C.
by dividing the
lb. by 28, and
the Quotient by
4.

C. Qrs. lb.

77 : 3 : 23, at £ 5 : 15 : 8 d^{p} C.
5

$$\begin{array}{r} \text{s.} \quad \text{d.} \\ 14 : \text{---} \quad \frac{7}{10} \quad 385 \\ 1 : 8 \text{---} \quad \frac{1}{12} \quad 53 : 18 : \text{---} \\ \text{Qrs. lb.} \quad 6 : 8 : 4 \\ 2 : \text{---} \quad \frac{1}{2} \quad 2 : 17 : 10 \\ 1 : \text{---} \quad \frac{1}{2} \quad 1 : 8 : 11 \\ 14 \text{---} \quad \frac{1}{2} \quad \text{---} : 14 : 5 \frac{1}{2} \\ 7 \text{---} \quad \frac{1}{2} \quad \text{---} : 7 : 2 \frac{1}{2} \\ 2 \text{---} \quad \frac{1}{2} \quad \text{---} : 2 : \text{---} \frac{1}{2} \end{array}$$

£ 450 : 16 : 10 Answer.

CONTRACTIONS in Avoirdupoise Weight.

C. Qrs. lb.

778. 79 : — : 14, at £ 2 : 13 : 9 $\frac{1}{2}$ d^{p} C.

$$\begin{array}{r} \text{Qrs. lb.} \\ 3 : 14 = \frac{7}{2} \text{ of a C.} \quad \underline{21 : 10 : 2} \\ \phantom{3 : 14 = \frac{7}{2} \text{ of a C.}} \quad \quad \quad 10 \\ \text{C. Qrs. lb.} \quad \quad \quad \underline{18 : 16 : 4 \frac{1}{2}} \\ 80 : \text{---} : \text{---} \quad \quad \quad \underline{8} \\ \text{---} : 3 : 14 \quad \quad \quad \text{Subtract.} \quad \quad \quad \underline{2 : 7 : \text{---} \frac{1}{2}} \\ 79 : \text{---} : 14 \quad \quad \quad \underline{£ 212 : 14 : 7 \frac{1}{2} \text{ Answer.}} \end{array}$$

See Example 709.

779. 37 C.

779. $C. \text{ Qrs. lb.}$
 $37 : 3 : 21$, at $\text{£} 1 : 17 : 4 \text{ } \text{d}^{\text{d}}$ C.

$s. \text{ d.}$	38 C.	
$14 : \text{---} \text{---} \frac{7}{16}$	$26 : 12 : \text{---}$	
$3 : 4 \text{---} \frac{1}{8}$	$6 : 6 : 8$	
$C. \text{ Qrs. lb.}$	$70 : 18 : 8$	
$38 : \text{---} : \text{---}$	$\text{---} : 2 : 4^*$	} <i>Subtract.</i>
$\text{---} : \text{---} : 7 \text{---}$		

$\text{£} 1 : 17 : 4$
 $14 \text{---} \frac{1}{4}$
 $7 \text{---} \frac{1}{2}$

$37 : 3 : 21 \text{ } \text{£} 70 : 16 : 4 \text{ Answer.}$

See Example 711.

780. $C. \text{ Qrs. lb.}$
 $23 : 3 : 8$, at $79s. 11d.$
 d^{d} C.

$C. \text{ Qrs. lb.}$
 $23 : 3 : 8$
 $4 \text{ } \text{£}$ wanting $23d.$

$d. \text{ } 92$
 $23 = \text{---} : 1 : 11$ } *Subtract.*

Qrs. lb.
 $91 : 18 : 1$
 $2 : \text{---} \text{---} \frac{1}{16}$
 $1 : \text{---} \text{---} \frac{1}{8}$
 $8 \text{---} \frac{1}{2}$

$\text{£} 95 : 3 : 8\frac{1}{2} \text{ Answer.}$

See Example 718.

781. $C. \text{ Qrs. lb.}$
 $19 : 1 : 11$, at $79s. 11\frac{1}{2}d.$
 d^{d} C.

$C. \text{ Qrs. lb.}$
 $19 : 1 : 11$
 $4 \text{ } \text{£}$ wanting 19 Farth.

$\text{Far. } 76$
 $19 = \text{---} : \text{---} : 4\frac{1}{2}$ } *Sub.*

Qrs. lb.
 $75 : 19 : 7\frac{1}{2}$
 $1 : \text{---} \text{---} \frac{1}{16}$
 $7 \text{---} \frac{1}{2}$
 $4 \text{---} \frac{1}{7}$

$\text{£} 77 : 7 : 5 \text{ Answer.}$

See Example 733.

782. $C. \text{ Qrs. lb.}$ £ $s.$ $d.$
 $39 : 2 : 13$, at $19 : 13 : 8\frac{1}{2} \text{ } \text{d}^{\text{d}}$ C.

10
 $196 : 16 : 10\frac{1}{2}$
 4

$787 : 7 : 6$
 $19 : 13 : 8\frac{1}{2}$ } *Subtract.*

Qrs. lb.
 $767 : 13 : 9\frac{1}{2}$
 $2 : \text{---} \text{---} \frac{1}{16}$
 $8 \text{---} \frac{1}{2}$
 $4 \text{---} \frac{1}{4}$
 $1 \text{---} \frac{1}{8}$

$\text{£} 779 : 16 : 3\frac{1}{2} \text{ Answer.}$

See Example 735.

Y 2

Examples

Examples for the Learner's Exercise.

Answer.

- C. *Qrs.*
 What cost 749 : 2, at 15s. 9d. $\frac{1}{2}$ C. ? — £ 590 : 4 : 7½
 C. *Qr.*
 At £ 3 : 11 : 10 $\frac{1}{2}$ C. what cost 941 : 1 ? — 3380 : 13 : 1½
 C. *Qrs.*
 At £ 5 : 7 $\frac{1}{2}$ C. what cost 137 : 3 ? — 736 : 19 : 3
 C. *Qr. lb.*
 At £ 1 : 7 : 11½ $\frac{1}{2}$ C. what cost 187 : 1 : 16 ? — 262 : 3 : —½
 C. *Qrs. lb.*
 At 19s. 9½d. $\frac{1}{2}$ C. what cost 98 : — : 16 ? — 97 : — : 4½
 C. *Qrs. lb.*
 At 18s. 7½d. $\frac{1}{2}$ C. what cost 907 : — : 24 ? — 845 : 15 : 8½
 C. *Qrs. lb.*
 At 60s. $\frac{1}{2}$ C. what cost 97 : 2 : 14 ? — 292 : 17 : 6
 C. *Qrs. lb.*
 What cost 917 : — : 14, at 63s. $\frac{1}{2}$ C. ? — 2288 : 18 : 10½
 C. *Qrs. lb.*
 What cost 827 : 3 : 21, at £ 3 : 13 $\frac{1}{2}$ C. ? — 3021 : 19 : 5½
 C. *Qrs. lb.*
 What cost 8 : — : 21, at £ 3 : 13 : 7½ $\frac{1}{2}$ C. ? — 30 : 2 : 7½
 C. *Qrs. lb.*
 At £ 3 : 11 : 2½ $\frac{1}{2}$ C. what cost 71 : — : 20 ? 253 : 7 : —½
 C. *Qrs. lb.*
 At £ 4 : 17 : 9 $\frac{1}{2}$ C. what cost 175 : — : 18 ? 856 : 1 : 11½
 C. *Qrs. lb.*
 At £ 5 : 16 : 7 $\frac{1}{2}$ C. what cost 13 : 2 : 12 ? — 79 : 6 : 4
 C. *Qrs. lb.*
 At £ 2 : 11 : 2½ $\frac{1}{2}$ C. what cost 17 : — : 12 ? — 43 : 15 : 7½
 C. *Qrs. lb.*
 At £ 5 : 5 $\frac{1}{2}$ C. what cost 87 : 3 : 8 ? — 461 : 1 : 3
 C. *Qrs. lb.*
 At 20s. $\frac{1}{2}$ C. what cost 137 : — : 8 ? — 137 : 1 : 5
 C. *Qrs. lb.*
 At 5s. 9d. $\frac{1}{2}$ C. what cost 89 : 2 : 10 ? — 25 : 15 : 1½
 C. *Qrs. lb.*
 At 17s. 7d. $\frac{1}{2}$ C. what cost 17 : — : 10 ? — 15 : — : 5½
 C. *Qr. lb.*
 At £ 3 : 1 : 4 $\frac{1}{2}$ C. what cost 171 : 1 : 4 ? — 525 : 5 : 6½
 C. *Qrs. lb.*
 At £ 1 : 17 : 3 $\frac{1}{2}$ C. what cost 87 : — : 4 ? — 162 : 2 : —½
 C. *Qrs. lb.*
 What cost 97 : 3 : 2, at 8s. 11½d. $\frac{1}{2}$ C. ? — 43 : 17 : 10
 C. *Qr. lb.*
 At £ 3 : — : 6 $\frac{1}{2}$ C. what cost 1 : 1 : 1 ? — 3 : 16 : 1½
 At

Answer.

- C. Qrs. lb.*
At 13s. 2½d. ♂ C. what cost 3 : — : 3? — £ 1 : 19 : 10½
- C. Qr. lb.*
At £ 1 : 7 : 2½ ♂ C. what cost 1 : 1 : 5? — 1 : 15 : 2
- C. Qrs. lb.*
What cost 13 : — : 5, at 9s. 2½d. ♂ C. ? — 5 : 19 : 9½
- C. Qrs. lb.*
At 97s. 9d. ♂ C. what cost 5 : 3 : 6? — 28 : 7 : 3½
- C. Qrs. lb.*
At 11s. 2½d. ♂ C. what cost 173 : — : 6? — 97 : 3 : 2½
- C. Qrs. lb.*
If 1 C. cost £ 1 : 11 : 3½, what cost 13 : 3 : 9? — 21 : 12 : 5½
- C. Qrs. lb.*
At £ 2 : 13 : 7½ ♂ C. what cost 97 : — : 9? — 260 : 3 : 10½
- C. Qr. lb.*
What cost 137 : 1 : 11, at £ 3 : 17 : 8 ♂ C. ? — 533 : 7 : 4½
- C. Qrs. lb.*
At £ 2 : 1 : 3½ ♂ C. what cost 13 : — : 11? — 27 : — : 6½
- C. Qrs. lb.*
At 11s. 2d. ♂ C. what cost 8 : 2 : 13? — 4 : 16 : 2½
- C. Qrs. lb.*
At 19s. 7d. ♂ C. what cost 7 : — : 13? — 6 : 19 : 4
- C. Qrs. lb.*
If 1 C. costs £ 5, what cost 171 : 2 : 15? — 858 : 3 : 4½
- C. Qrs. lb.*
At 16s. 9½d. ♂ C. what cost 87 : — : 15? — 73 : 1 : 3
- C. Qr. lb.*
What cost 131 : 1 : 17, at £ 1 : 11 : 2 ♂ C. ? 204 : 13 : 4
- C. Qrs. lb.*
At 17s. 2½d. ♂ C. what cost 3 : — : 17? — 2 : 14 : 1½
- C. Qrs. lb.*
At £ 3 : — : 7½ ♂ C. what cost 7 : — : 19? — 21 : 14 : 5½
- C. Qrs. lb.*
What cost 17 : 3 : 22, at £ 3 : 15 : 9½ ♂ C. ? — 67 : 19 : 9
- C. Qrs. lb.*
At 11s. 1½d. ♂ C. what cost 7 : — : 22? — 3 : 19 : 10½
- C. Qr. lb.*
At £ 4 : 17 : 8½ ♂ C. what cost 17 : 1 : 23? — 84 : — : 8½
- C. Qrs. lb.*
If 1 C. cost 17s. 1½d. what cost 71 : — : 23? — 60 : 17 : 10½
- C. Qrs. lb.*
At £ 3 : 17 : 5 ♂ C. what cost 87 : 2 : 25? — 339 : 11 : 2½
- C. Qr. lb.*
What cost 1 : 1 : 26, at 46s. ♂ C. ? — 3 : 8 : 1½
- C. Qrs. lb.*
At 73s. ♂ C. what cost 13 : 3 : 27? — 31 : 1 : 3½
- What

Answer.

		C. Qrs. lb.	
What cost 47 Hogheads, each	4 : 3 : 17, at	} £ 541 : 8 : — $\frac{1}{2}$	
£ 2 : 7 $\frac{1}{2}$ C.	—		
At 37s. 6d. $\frac{1}{2}$ C. what cost 21 lb.?	—	— : 7 : — $\frac{1}{2}$	
What cost 26 lb. at 79s. $\frac{1}{2}$ C.?	—	— : 18 : 3 $\frac{1}{2}$	
At £ 1 : 13 : 7 $\frac{1}{2}$ C. what cost 27 lb.?	—	— : 8 : — $\frac{1}{2}$	
		Tons. C. Qr.	
At £ 5 $\frac{1}{2}$ Ton, what cost 8 : 15 : 1?	—	43 : 16 : 3	
		Tons. C. Qr.	
At £ 4 : 17 : 11 $\frac{1}{2}$ Ton, what cost 87 : 17 : 1?	—	430 : 3 : 2 $\frac{1}{2}$	
		Tons. C. Qrs. lb.	
What cost 17 : 19 : 2 : 15, at £ 17 $\frac{1}{2}$ Ton?	—	305 : 13 : 9 $\frac{1}{2}$	
		Tons. C. Qrs. lb.	
At £ 21 : 17 : 3 $\frac{1}{2}$ Ton, what cost 47 : 19 : 2 : 26?	—	1069 : 2 : 3	
At 3s. 2 $\frac{1}{2}$ d. $\frac{1}{2}$ lb. what cost 7 lb. 8 oz.?	—	1 : 4 : — $\frac{1}{2}$	
At 7s. 1 $\frac{1}{2}$ d. $\frac{1}{2}$ lb. what cost 9 lb. 4 oz.?	—	3 : 5 : 8 $\frac{1}{2}$	
What cost 19 lb. 2 oz. at 7d. $\frac{1}{2}$ lb.?	—	— : 11 : 1 $\frac{1}{2}$	
What cost 139 lb. 1 oz. at 5s. 8d. $\frac{1}{2}$ lb.?	—	39 : 8 : — $\frac{1}{2}$	
At 5s. 4d. $\frac{1}{2}$ lb. what cost 171 lb. 14 oz.?	—	45 : 16 : 8	
At 6s. 2d. $\frac{1}{2}$ lb. what cost 187 lb. 15 oz.?	—	57 : 18 : 11 $\frac{1}{2}$	
		lb. oz. dr.	
At 8s. 4d. $\frac{1}{2}$ lb. what cost 73 : 6 : 9?	—	30 : 11 : 8 $\frac{1}{2}$	
		lb. oz. dr.	
What cost 7 : 15 : 12, at 5s. $\frac{1}{2}$ lb.?	—	1 : 19 : 10 $\frac{1}{2}$	
What cost 9 oz. 15 dr. at 2s. 7d. $\frac{1}{2}$ oz.?	—	1 : 5 : 7 $\frac{1}{2}$	
At 16s. $\frac{1}{2}$ lb. what cost 15 oz. 15 dr.?	—	— : 15 : 11 $\frac{1}{2}$	
Reduce 37 C. into lb.	—	— lb. 4144	
Reduce 87 C. 3 Qrs. into lb.	—	— 9856	
		C. Qr. lb.	
Reduce 17 : 1 : 9 into lb.	—	— 1941	
Reduce 37 : 3 : 26 into lb.	—	— 4254	
Reduce 17 : — : 17 into lb.	—	— 1921	
What cost 137 C. at 5 $\frac{1}{2}$ d. $\frac{1}{2}$ lb.	—	223 : 15 : 4	
At 7 $\frac{1}{2}$ d. $\frac{1}{2}$ lb. what cost 71 C. 3 Qrs.?	—	242 : 15 : 1	
		C. Qr. lb.	
At 3 $\frac{1}{2}$ d. $\frac{1}{2}$ lb. what cost 37 : 1 : 5?	—	65 : 5 : 3 $\frac{1}{2}$	
At 7 $\frac{1}{2}$ d. $\frac{1}{2}$ lb. what cost 71 : 3 : 27?	—	260 : 7 : 4 $\frac{1}{2}$	
		C. Qrs. lb.	
At 1s. 9 $\frac{1}{2}$ d. $\frac{1}{2}$ lb. what cost 87 : — : 17?	—	864 : 5 : 1 $\frac{1}{2}$	
What cost 387 lb. at £ 1 : 13 : 8 $\frac{1}{2}$ C.?	—	5 : 16 : 3 $\frac{1}{2}$	

PRACTICE.

IV. BEER and ALE Measure.

2 Pints	}	make	1 Quart.
4 Quarts			1 Gallon.
8 Gallons of Ale			1 Firkin.
9 Gallons of Beer			1 Barrel.
4 Firkins of Ale or Beer			1 Hoghead.
1½ Barrel of Ale or Beer			

TABLES of aliquot Parts.

I. One Barrel the Integer.

1. BEER.

Gall. Qts.

3	:	—	—	is	—	$\frac{1}{3}$
4	:	—	—	—	—	$\frac{1}{4}$
4	:	2	—	—	—	$\frac{1}{2}$
9	:	—	—	—	—	$\frac{1}{9}$
12	:	—	—	—	—	$\frac{1}{12}$
18	:	—	—	—	—	$\frac{1}{18}$

2. ALE.

Gall.

4	—	is	—	$\frac{1}{4}$
8	—	—	—	$\frac{1}{8}$
16	—	—	—	$\frac{1}{16}$

II. One Hoghead the Integer.

3. BEER.

Gall. Qts.

6	:	—	—	is	—	$\frac{1}{6}$
6	:	3	—	—	—	$\frac{1}{8}$
9	:	—	—	—	—	$\frac{1}{9}$
13	:	2	—	—	—	$\frac{1}{12}$
18	:	—	—	—	—	$\frac{1}{18}$
27	:	—	—	—	—	$\frac{1}{27}$

4. ALE.

Gall.

4	—	is	—	$\frac{1}{4}$
6	—	—	—	$\frac{1}{6}$
8	—	—	—	$\frac{1}{8}$
12	—	—	—	$\frac{1}{12}$
16	—	—	—	$\frac{1}{16}$
24	—	—	—	$\frac{1}{24}$

Examples.

Examples.

Barr. Gall.
783. 47 : 3 of Beer, at 35 s. $\frac{d}{p}$ Barrel.

Barr.
s. d.
10 ... 47
23 : 10 : —
5 ... 11 : 15 : —
Gall. 3 $\frac{2}{13}$ — : 2 : 11
£ 82 : 7 : 11 Answer.

Barr. Gall.
784. 17 : 4 of Beer, at 31 s. 6 d. $\frac{d}{p}$ Barrel.

s. d.
31 : 6
4
6 : 6 : —
4 × 4 + 1 = 17 4
Gall. $\frac{25}{4}$: 4 : —
1 : 11 : 6
4 ... $\frac{3}{9}$ — : 3 : 6
£ 26 : 19 : — Answer.

Barr. Gall. Qts.
785. 3 : 4 : 2 of Beer, at £1 : 17 $\frac{d}{p}$ Barrel.

£ s. d.
1 : 17
3
Gall. Qts. $\frac{5}{4}$: 11 : —
4 : 2 ... $\frac{1}{8}$ 4 : 7 $\frac{1}{2}$
£ 5 : 15 : 7 $\frac{1}{2}$ Answer.

Barr. Gall.
786. 108 : 6 of Beer, at £1 : 13 : 11 $\frac{d}{p}$ Barrel.

£ s. d.
1 : 13 : 11
12
20 : 7 : —
12 × 9 = 108 9
Gall. $\frac{183}{6}$: 3 : —
— : 5 : 7 $\frac{1}{2}$
£ 183 : 8 : 7 $\frac{1}{2}$ Answer.

Barr. Gall.
787. 71 : 9 of Beer, at £1 : 17 : 2 $\frac{d}{p}$ Barrel.

Barr.
s. d.
16 : — ... $\frac{1}{10}$ 56 : 16 : —
1 : — ... $\frac{1}{20}$ 3 : 11 : —
2 ... $\frac{1}{10}$ — : 11 : 10
Gall. 9 ... $\frac{1}{4}$ — : 9 : 3 $\frac{1}{2}$
£ 132 : 8 : 1 $\frac{1}{2}$ Answer.

788. 12 Gallons of Beer, at £1 : 15 : 10 $\frac{d}{p}$ Barrel.

£ s. d.
1 : 15 : 10
Gall. 12 ... $\frac{1}{3}$ — : 11 : 11 $\frac{1}{2}$ Answer.

Barr. Gall.
789. 117 : 18 of Beer, at £1 : 14 : 7 $\frac{d}{p}$ Barrel.

s. d.
14 : — ... $\frac{7}{10}$ 81 : 18 : —
6 ... $\frac{7}{10}$ 2 : 18 : 6
1 ... $\frac{1}{10}$ — : 9 : 9
Gall. 18 ... $\frac{1}{2}$ — : 17 : 3 $\frac{1}{2}$
£ 203 : 3 : 6 $\frac{1}{2}$ Answer.

790. 29 Gallons

TICE.

790. 29 Gallons of Beer, at
 $\text{£ } 1 : 17 : 8 \text{ } \frac{1}{2}$ Barrel.

$\text{£ } 1 : 17 : 8$

Gall.			
18	$-\frac{1}{2}$	18	10
6	$-\frac{1}{2}$	6	$3\frac{1}{2}$
4	$-\frac{1}{2}$	4	2
1	$-\frac{1}{2}$	1	$\frac{1}{2}$

$\text{£ } 1 : 10 : 3\frac{1}{2}$ Answer.

791. 34 Gallons of Beer, at
 $\text{£ } 1 : 15 : 3 \text{ } \frac{1}{2}$ Barrel.

$\text{£ } 1 : 15 : 3$

Gall.			
18	$-\frac{1}{2}$	17	$7\frac{1}{2}$
12	$-\frac{1}{2}$	11	9
4	$-\frac{1}{2}$	3	11

$\text{£ } 1 : 13 : 3\frac{1}{2}$ Answer.

Barr. Gall.

792. 179 : 19 of Beer, at
 $\text{£ } 1 : 13 : 11 \text{ } \frac{1}{2}$ Barrel.

s.	d.		
12	$-\frac{6}{10}$	107	8 : —
1	$8 - \frac{1}{10}$	14	18 : 4
3	$-\frac{1}{10}$	2	4 : 9
Gall. 12	$-\frac{1}{10}$	—	11 : $3\frac{1}{2}$
6	$-\frac{1}{10}$	—	5 : $7\frac{1}{2}$
1	$-\frac{1}{10}$	—	— : $11\frac{1}{2}$

$\text{£ } 304 : 8 : 11\frac{1}{2}$ Ans.

Hbds. Gall.

793. 17 : 6 of Beer, at $\text{£ } 2 : 1 : 7$
 $\frac{1}{2}$ Hoghead.

$\text{£ } 2 : 1 : 7$

16 : 12 : 8

$8 \times 2 + 1 = 17$

Gall.			
33	5 : 4		
2	1 : 7		
6	$-\frac{1}{2}$	4	$7\frac{1}{2}$

$\text{£ } 35 : 11 : 6\frac{1}{2}$ Answer.

Beer and Ale Measure. 169

Hbds. Gall. Qts.

794. 3 : 6 : 3 of Beer, at
 $\text{£ } 2 : 19 : 6 \text{ } \frac{1}{2}$ Hoghead.

$\text{£ } s. d.$
 $2 : 19 : 6$
 3

Gall. Qts.			
8	18 : 6		
6 : 3	$-\frac{1}{2}$	7	$5\frac{1}{2}$

$\text{£ } 9 : 5 : 11\frac{1}{2}$ Answer.

Hbd. Gall.

795. 1 : 9 of Beer, at $\text{£ } 2 : 3 : 7$
 $\frac{1}{2}$ Hoghead.

Gall.			
2	3 : 7		
9	$-\frac{1}{2}$	7	3

$\text{£ } 2 : 10 : 10$ Answer.

796. 18 Gallons of Beer, at
 $\text{£ } 2 : 17 : 11 \text{ } \frac{1}{2}$ Hoghead.

$\text{£ } s. d.$
 $2 : 17 : 11$

Gall.			
18	$-\frac{1}{2}$	19	$3\frac{1}{2}$

Hbds. Gall. Qts.

797. 16 : 13 : 2 of Beer, at
 $\text{£ } 3 : 19 : 7 \text{ } \frac{1}{2}$ Hoghead.

$\text{£ } s. d.$
 $3 : 19 : 7$
 4

15 : 18 : 4

Gall. Qts.			
63	13 : 4		
13 : 2	$-\frac{1}{2}$	19	$10\frac{1}{2}$

$\text{£ } 64 : 13 : 2\frac{1}{2}$ Answer.

798. 197 Hbds.

170 Beer and Ale Measure.

Hbds. Gall.

798. 197 : 27 of Beer, at
£ 1 : 19 : 5 $\frac{1}{2}$ Hoghead.

Hbds.

s.	d.		197	
18 : —	$\frac{2}{10}$		177 : 6 : —	
1 : —	$\frac{1}{10}$		9 : 17 : —	
4 : —	$\frac{1}{10}$		3 : 5 : 8	
1 : —	$\frac{1}{10}$		— : 16 : 5	
Gall. 27 : —	$\frac{1}{2}$		— : 19 : 8 $\frac{1}{2}$	

£ 389 : 4 : 9 $\frac{1}{2}$ Ans.

Hbds. Gall.

799. 38 : 37 of Beer, at 57s. $\frac{1}{2}$ Hoghead.

Hbds. Gall.

			38 : 37	
			2	
s.	d.		76	
16 : —	$\frac{8}{10}$		30 : 8 : —	
1 : —	$\frac{1}{10}$		1 : 18 : —	
Gall. 27 : —	$\frac{1}{2}$		1 : 8 : 6	
9 : —	$\frac{1}{2}$		— : 9 : 6	
1 : —	$\frac{1}{2}$		— : 1 : 1 $\frac{1}{2}$	

£ 110 : 5 : — $\frac{1}{2}$ Answer.

800. 53 Gallons of Beer, at
£ 2 : 10 $\frac{1}{2}$ Hoghead.

	£	s.	
	2	10	
Gall.			
27 : —			1 : 5 : —
18 : —			— : 16 : 8
6 : —			— : 5 : 6 $\frac{1}{2}$
2 : —			— : 1 : 10

£ 2 : 9 : — $\frac{1}{2}$ Answer.

PRAC.

O R,

53 Gallons are $\frac{1}{2}$ of a Hoghead.

	53	
	50	
	2650	
54 {	9	
	294 : 5 $\frac{1}{2}$	
	6	
	49 : — $\frac{1}{2}$	
	20	

£ 2 : 9 : — $\frac{1}{2}$ Ans.

801. 1 Barrel of Beer, at 9d. $\frac{1}{2}$ Gallon.

	4,
	9
	6
	4 : 6
	6

£ 1 : 7 : — Answer.

O R,

Gall.

36 at 9d. each.

d.	
6 - $\frac{1}{2}$	18
3 - $\frac{1}{2}$	9

£ 1 : 7 Answer.

O R,

Gall.

d. 36 at 9d. each.

3 - $\frac{1}{2}$	9
	27
	20

£ 1 : 7 Answer.

802. 1 Hoghead

TICE.

802. 1 Hogfhead of Beer, at $8\frac{1}{2}d.$
 q^{p} Gallon.

$$\begin{array}{r} 8\frac{1}{2}d. \\ 9 \\ 6 : 4\frac{1}{2} \\ 6 \end{array}$$

$\text{£} 1 : 18 : 3$ Answer.

O R,

54 Gall. at $8\frac{1}{2}d.$

$$\begin{array}{r} d. \\ 6 --- \frac{1}{2} 27 \\ 2 --- \frac{1}{4} 9 \\ \frac{1}{2} --- \frac{1}{2} 2 : 3 \end{array}$$

$\text{£} 1 : 18 : 3$ Answer.

Barr. Gall.

803. 713 : 4 of Ale, at 35 s. q^{p}
 Barrel.

$$\begin{array}{r} s. \quad d. \\ 14 : --- \frac{7}{10} 713 \text{ Barr.} \\ 1 : --- \frac{1}{10} 499 : 2 : --- \\ \text{Gall. } 4 --- \frac{1}{8} 35 : 13 : --- \\ --- : 4 : 4\frac{1}{2} \end{array}$$

$\text{£} 1247 : 19 : 4\frac{1}{2}$ Anf.

804. 1 Firkin of Ale, at 30s. 11d.
 q^{p} Barrel.

$$\begin{array}{r} s. \quad d. \\ \text{Gall.} \\ 8 --- \frac{1}{4} 30 : 11 \\ 7 : 8\frac{1}{4} \text{ Answer.} \end{array}$$

Barr. Gall.

805. 171 : 16 of Ale, at 34s. 10d.
 q^{p} Barrel.

$$\begin{array}{r} s. \quad d. \\ 14 : --- \frac{7}{10} 171 \text{ Barr.} \\ 6 --- \frac{1}{10} 119 : 14 : --- \\ 4 --- \frac{1}{10} 4 : 5 : 6 \\ \text{Gall. } 16 --- \frac{1}{2} 2 : 17 : --- \\ --- : 17 : 5 \end{array}$$

$\text{£} 298 : 13 : 11$ Answer.

Beer and Ale Measures. 1711

806. 27 Gallons of Ale, at 31s. 5d.
 q^{p} Barrel.

$$\begin{array}{r} s. \quad 31 : 5d. \\ \text{Gall.} \\ 16 --- \frac{1}{2} 15 : 8\frac{1}{2} \\ 8 --- \frac{1}{4} 7 : 10\frac{1}{4} \\ 2 --- \frac{1}{8} 1 : 11\frac{1}{8} \\ 1 --- \frac{1}{16} --- : 11\frac{1}{16} \end{array}$$

$\text{£} 1 : 6 : 6$ Answer.

807. 31 Gallons of Ale, at $\text{£} 1 : 14 : 7$
 q^{p} Barrel.

$$\begin{array}{r} \text{£} 1 : 14 : 7 \\ \text{Gall.} \\ 16 --- --- : 17 : 3\frac{1}{2} \\ 8 --- --- : 8 : 7\frac{1}{2} \\ 4 --- --- : 4 : 3\frac{1}{2} \\ 2 --- --- : 2 : 1\frac{1}{2} \\ 1 --- --- : 1 : --- \end{array}$$

$\text{£} 1 : 13 : 5\frac{1}{2}$ Answer.

Hbds. Gall.

808. 179 : 4 of Ale, at 52s. 1d.
 q^{p} Hogfhead.

Hbds. Gall.

$$\begin{array}{r} 179 : 4 \\ 2 \end{array}$$

$$\begin{array}{r} s. \quad d. \\ 10 : --- \frac{1}{2} 358 \\ 1 : --- \frac{1}{10} 89 : 10 : --- \\ 1 : --- \frac{1}{10} 8 : 19 : --- \\ 1 : --- \frac{1}{10} 8 : 19 : --- \\ 1 : --- \frac{1}{10} --- : 14 : 11 \\ \text{Gall. } 4 --- \frac{1}{10} --- : 4 : 4 \end{array}$$

$\text{£} 466 : 7 : 3$ Answer.

Hbds. Gall.

809. 7 : 6 of Ale, at $\text{£} 2 : 17 : 11$
 q^{p} Hogfhead.

$$\begin{array}{r} \text{£} 2 : 17 : 11 \\ 7 \end{array}$$

$$\begin{array}{r} \text{Gall.} \\ 6 --- \frac{1}{2} 20 : 5 : 5 \\ --- : 7 : 2\frac{1}{2} \end{array}$$

$\text{£} 20 : 12 : 7\frac{1}{2}$ Answer.

810. 107 Hbds.

Hbds. Gall.

810. 107 : 8 of Ale, at £2 : 16 : 8
 ⚡ Hoghead.

Hbds. Gall.

107 : 8
 2

s.	d.		214
16	---	$\frac{8}{16}$	85 : 12 : —
8	---	$\frac{1}{16}$	3 : 11 : 4
Gall. 8	---	$\frac{1}{8}$	— : 9 : 5½

£ 303 : 12 : 9½ Anf.

Hbds. Gall.

811. 17 : 12 of Ale, at 45 s. ⚡
 Hoghead.

Hbds. Gall.

17 : 12

s.		34
5	---	$\frac{1}{4}$
Gall. 12	---	$\frac{1}{2}$

4	:	5	:	—
—	:	11	:	3

£ 38 : 16 : 3 Answer.

Hbds. Gall.

812. 371 : 24 of Ale, at 46s. 11d.
 ⚡ Hoghead.

Hbds. Gall.

371 : 24
 2

s.	d.		742
6	:	8	---
3	---	$\frac{1}{10}$	123 : 13 : 4
Gall. 24	---	$\frac{1}{2}$	4 : 12 : 9
			1 : 3 : 5½

£ 871 : 9 : 6½ Answer.

Hbds. Gall.

813. 31 : 16 of Ale, at 46s. 7d.
 ⚡ Hoghead.

Hbds. Gall.

31 : 16
 2

s.	d.		62
4	---	$\frac{1}{4}$	6 : 4 : —
6	---	$\frac{1}{6}$	— : 15 : 6
1	---	$\frac{1}{6}$	— : 2 : 7
Gall. 16	---	$\frac{1}{2}$	— : 14 : 10½

£ 69 : 16 : 11½ Answer.

814. 37 Gallons of Ale, at
 £ 1 : 13 : 7 ⚡ Hoghead.

£ s. d.
 1 : 13 : 7

Gall.		
24	---	$\frac{1}{2}$
12	---	$\frac{1}{2}$
1	---	$\frac{1}{12}$

—	:	16	:	9½
—	:	8	:	4½
—	:	—	:	8½

£ 1 : 5 : 10½ Answer.

815. 47 Gallons of Ale, at 49 s.
 ⚡ Hoghead.

£ s. d.
 2 : 9 : —

Gall.		
24	---	$\frac{1}{2}$
16	---	$\frac{1}{2}$
6	---	$\frac{1}{6}$
1	---	$\frac{1}{6}$

1	:	4	:	6
—	:	16	:	4
—	:	6	:	1½
—	:	1	:	—

£ 2 : 7 : 11½ Answer.

816. 1 Barrel

TICE. Examples for the Learner's Exercise.

173

816. 1 Barrel of Ale, at $7\frac{1}{2}d.$ $\frac{1}{4}$ Gallon. 817. 1 Hoghead of Ale, at $8\frac{1}{2}d.$ $\frac{1}{4}$ Gallon.

$$\begin{array}{r} 7\frac{1}{2}d. \\ \hline 8 \\ \hline 4 : 10 \\ \hline 4 \\ \hline s. 19 : 4 \text{ Answer.} \end{array}$$

O R, 32 Gallons at $7\frac{1}{2}d.$ each.

$$\begin{array}{r} d. 1 \\ 6 - \frac{1}{2} \\ 1 - \frac{1}{4} \\ \frac{1}{2} - \frac{1}{4} \\ \hline 16 : - \\ 2 : 8 \\ : 8 \\ \hline s. 19 : 4 \text{ Answer.} \end{array}$$

$$\begin{array}{r} 8\frac{1}{2}d. \\ \hline 8 \\ \hline 5 : 8 \\ \hline 6 \\ \hline £ 1 : 14 : - \text{ Answer.} \end{array}$$

O R, 48 Gallons at $8\frac{1}{2}d.$ each.

$$\begin{array}{r} d. 1 \\ 6 - \frac{1}{2} \\ 2 - \frac{1}{4} \\ \frac{1}{2} - \frac{1}{4} \\ \hline 1 : 4 : - \\ : 8 : - \\ : 2 : - \\ \hline £ 1 : 14 : - \text{ Answer.} \end{array}$$

Examples for the Learner's Exercise.

Answer.

Barr. Gall.

What cost 17 : 3 of Beer, at 34s. 5d. $\frac{1}{4}$ Barrel? — £ 29 : 7 : 11 $\frac{1}{2}$

Barr. Gall.

At 32s. 7d. $\frac{1}{4}$ Barrel, what cost 71 : 4 of Beer? — 115 : 17 : — $\frac{1}{2}$

Barr. Gall. $\frac{2}{11}$ s.

At 30s. $\frac{1}{4}$ Barrel of Beer, what cost 7 : 4 : 2? — 10 : 13 : 9

At £ 1 : 13 : 7 $\frac{1}{4}$ Barrel of Beer, what cost 6 Gallons? — : 5 : 7

Barr. Gall.

If 1 Barrel of Beer cost 31s. what cost 107 : 9? — 166 : 4 : 9

Barr. Gall.

What cost 81 : 12 of Beer, at 34s. 5d. $\frac{1}{4}$ Barrel? — 139 : 19 : 2 $\frac{1}{2}$

Barr. Gall.

What cost 171 : 18 of Beer, at 31s. 9d. $\frac{1}{4}$ Barrel? 272 : 5 : 1 $\frac{1}{2}$

What cost 25 Gallons of Beer, at 37s. $\frac{1}{4}$ Barrel? — 1 : 5 : 8 $\frac{1}{2}$

At 34s. 7d. $\frac{1}{4}$ Barrel of Beer, what cost 35 Gallons? — 1 : 13 : 7 $\frac{1}{2}$

Barr. Gall.

What cost 871 : 17 of Beer, at £ 1 : 14 : 7 $\frac{1}{4}$ Barrel? 1506 : 18 : 4 $\frac{1}{2}$

Hbds. Gall.

At 45s. $\frac{1}{4}$ Hoghead of Beer, what cost 8 : 6? — 18 : 5 : —

Hbds. Gall. $\frac{2}{11}$ s.

At 50s. $\frac{1}{4}$ Hoghead of Beer, what cost 7 : 6 : 3? 17 : 16 : 3

Hbds. Gall.

What cost 7 : 9 of Beer, at 47s. 8d. $\frac{1}{4}$ Hoghead? 17 : 1 : 7 $\frac{1}{2}$

Gall. $\frac{2}{11}$ s.

What cost 13 : 2 of Beer, at £ 2 : 8 $\frac{1}{4}$ Hoghead? — : 12 : —

At

*Answer.*At 48s. 6d. $\frac{1}{2}$ Hoghead of Beer, what cost 18 Gallons? $\text{£} - : 16 : 2$ *Hbd. Gall.*At 50s. $\frac{1}{2}$ Hoghead of Beer, what cost 1 : 27 $\frac{1}{2}$ — 3 : 15 : —*Hbds. Gall.*At 57s. $\frac{1}{2}$ Hoghead of Beer, what cost 17 : 37 $\frac{1}{2}$ — 50 : 8 : — $\frac{1}{2}$ What cost 53 Gallons of Beer, at $\text{£} 2 : 13 \frac{1}{2}$ Hoghead? 2 : 12 : —What cost 1 Barrel of Beer, at 7d. $\frac{1}{2}$ Gallon? — 1 : 1 : —What cost 1 Hoghead of Beer, at 8d. $\frac{1}{2}$ Gallon? — 1 : 16 : —What cost 4 Gallons of Ale, at 31s. 9d. $\frac{1}{2}$ Barrel? — : 3 : 11 $\frac{1}{2}$ *Barr. Gall.*At 33s. 1d. $\frac{1}{2}$ Barrel of Ale, what cost 79 : 8 $\frac{1}{2}$ — 131 : 1 : — $\frac{1}{2}$ *Barr. Gall.*At 35s. 11d. $\frac{1}{2}$ Barrel of Ale, what cost 871 : 16 $\frac{1}{2}$ 1565 : 1 : 4 $\frac{1}{2}$ At 32s. 6d. $\frac{1}{2}$ Barrel of Ale, what cost 29 Gallons? — 1 : 9 : 5 $\frac{1}{2}$ What cost 31 Gallons of Ale, at 49s. $\frac{1}{2}$ Barrel? — 2 : 7 : 5 $\frac{1}{2}$ At $\text{£} 2 : 17 \frac{1}{2}$ Hoghead of Ale, what cost 4 Gallons? — : 4 : 9*Hbds. Gall.*What cost 51 : 6 of Ale, at 50s. $\frac{1}{2}$ Hoghead? — 127 : 16 : 3*Hbd. Gall.*At $\text{£} 2 : 1 : 3 \frac{1}{2}$ Hoghead of Ale, what cost 1 : 8 $\frac{1}{2}$ 2 : 7 : 11 $\frac{1}{2}$ *Hbds. Gall.*What cost 71 : 12 of Ale, at $\text{£} 2 : 1 : 7 \frac{1}{2}$ Hogh. ? 148 : 2 : 9 $\frac{1}{2}$ *Hbds. Gall.*At $\text{£} 2 : 7 : 11 \frac{1}{2}$ Hoghead of Ale, what cost 37 : 16 189 : 8 : 10 $\frac{1}{2}$ *Hbds. Gall.*At $\text{£} 2 : 11 \frac{1}{2}$ Hoghead of Ale, what cost 79 : 24 $\frac{1}{2}$ 242 : 9 : 6What cost 38 Gallons of Ale, at 50s. $\frac{1}{2}$ Hoghead? — 1 : 19 : 7At $\text{£} 2 : 5 : 7 \frac{1}{2}$ Hoghead of Ale, what cost 47 Gallons? 2 : 4 : 7 $\frac{1}{2}$ At 6 $\frac{1}{2}$ d. $\frac{1}{2}$ Gallon of Ale, what cost 1 Barrel? — : 16 : 8At 9 $\frac{1}{2}$ d. $\frac{1}{2}$ Gallon of Ale, what cost 1 Hoghead? — 1 : 19 : —

PRACTICE.

V. WINE MEASURE.

2 Pints	}	make	{	1 Quart.
4 Quarts				1 Gallon.
10 Gallons				1 Anchor.
18 Gallons				1 Runlet.
31½ Gallons				½ a Hoghead.
42 Gallons				1 Tierce.
63 Gallons				1 Hoghead.
2 Hogheads				1 Pipe or Butt.
2 Pipes or 4 Hogheads	}			1 Tun.

TABLE of aliquot Parts.

One Hoghead the Integer.

Gall. Qts. Pints.

5	:	1	:	—	is	—	$\frac{1}{5}$
7	:	—	:	—	is	—	$\frac{1}{7}$
7	:	3	:	1	is	—	$\frac{1}{8}$
9	:	—	:	—	is	—	$\frac{1}{9}$
10	:	2	:	—	is	—	$\frac{1}{5}$
15	:	3	:	—	is	—	$\frac{1}{3}$
21	:	—	:	—	is	—	$\frac{1}{3}$
31	:	2	:	—	is	—	$\frac{1}{2}$

Examples.

Gall. Qt.
818. 5 : 1, at £ 15 : 17 : 6
per Hoghead.

£ s. d.
15 : 7 : 6

Gall. Qt.
5 : 1 — $\frac{1}{5}$ 1 : 5 : 7½ Ans.

Hbdt. Gall.

819. 13 : 7, at £ 16 : 18 : 8
per Hoghead.
£ 16 : 18 : 8
12

Gall.
203 : 4 : —
16 : 18 : 8
7 — $\frac{1}{5}$ 1 : 17 : 7½

£ 222 : — : 3½ Answer.

820. 7 Hbdt.

176 Wine Measure.

Hbds. Gall. Qts. Pint.

820. 7 : 7 : 3 : 1, at £ 15 $\frac{1}{4}$ Hoghead.

15 £
7

G. Q. P.

7 : 3 : 1 -- $\frac{1}{8}$ 105 1 : 17 : 6

£ 106 : 17 : 6 Ans.

Hbds. Gall.

821. 173 : 9, at £ 21 : 15 : 8 $\frac{1}{4}$ Hoghead.

173 Hbds.

7
1211
3 } 21

s. d.

14 : -- $\frac{7}{10}$ 3633 121 : 2 : --
1 : 8 -- $\frac{1}{15}$ 14 : 8 : 4
Gall. 9 -- $\frac{1}{7}$ 3 : 2 : 2 $\frac{1}{2}$

£ 3771 : 12 : 6 $\frac{1}{4}$ Ans.

Hbds. Gall. Qts.

822. 9 : 10 : 2, at £ 18 : 17 : 2 $\frac{1}{4}$ Hoghead.

£ 18 : 17 : 2
9

Gall. Qts.

10 : 12 -- $\frac{1}{6}$ 169 : 14 : 6
3 : 2 : 10 $\frac{1}{2}$

£ 172 : 17 : 4 $\frac{1}{2}$ Ans.

PRAC.

Hbds. Gall. Qts.

823. 7 : 15 : 3, at £ 12 : 6 : 8 $\frac{1}{4}$ Hoghead.

£ 12 : 6 : 8
7

Gall. Qts.

15 : 3 -- $\frac{1}{4}$ 86 : 6 : 8
3 : 1 : 8

£ 89 : 8 : 4 Ans.

Hbds. Gall.

824. 47 : 21, at £ 17 : 16 $\frac{1}{4}$ Hoghead.

£ 17 : 16
12

213 : 12

12 \times 4 -- 1 = 47

4

854 : 8

17 : 16 } Subtract

Gall.

21 -- $\frac{1}{3}$ 836 : 12
5 : 18 : 8

£ 842 : 10 : 8 Ans.

Hbds. Gall. Qts.

825. 171 : 31 : 2, at £ 23 : 17 : 5 $\frac{1}{4}$ Hoghead.

Hbds. Gall. Qts.

171 : 31 : 2
23

s. d.

16 : -- $\frac{5}{10}$ 513 342
1 : -- $\frac{1}{10}$ 136 : 16 : --
4 -- $\frac{1}{10}$ 8 : 11 : --
1 -- $\frac{1}{4}$ 2 : 17 : --
31 : 2 -- $\frac{1}{2}$ -- : 14 : 3

Gall. Qts.

31 : 2 -- $\frac{1}{2}$ 11 : 18 : 8 $\frac{1}{2}$

£ 4093 : 16 : 11 $\frac{1}{2}$ Ans.

826. 81 Hbds.

TICE.

Hbds. Gall.

826. 81 : 42, at £ 17 : 8 : 5
 ⚡ Hoghead.

Hbds. Gall.

81 : 42

17

s.	d.		567
8	—	—	81
4	—	—	32 : 8 : —
1	—	—	1 : 7 : —
	—	—	— : 6 : 9
Gall. 42	—	—	11 : 12 : 3½ *

£ 1422 : 14 : —¼ Ans.

42 Gallons are ⅔ of a Hoghead.

£ 17 : 8 : 5
 2

34 : 16 : 10
 3

11 : 12 : 3½ *

Hbds. Gall.

827. 11 : 56, at £ 17 : 6 : 3
 ⚡ Hoghead.

£ 17 : 6 : 3
 11

Gall.		190 : 8 : 9
56	—	15 : 7 : 9½ *

£ 205 : 16 : 6½ Anfw.

56 Gallons are ⅔ of a Hoghead.

£ 17 : 6 : 3
 8

138 : 10 : —
 9

15 : 7 : 9½ *

Wine Measure. 177

Hbds. Gall. Qts. Pint.

828. 9 : 55 : — : 1, at
 £ 13 : 18 : 11 ⚡ Hoghead.

£ s. d.
 13 : 18 : 11
 9

Gall. Qts. Pint.	125 : 10 : 3
55 : — : 1	12 : 4 : —½ *

£ 137 : 14 : 3½ An.

Gall. Qts. Pint.

55 : — : 1 are ⅔ of a Hoghead.

£ s. d.
 13 : 18 : 11
 7

97 : 12 : 5
 8

12 : 4 : —½ *

Hbds. Gall. Qts.

829. 11 : 57 : 3, at £ 17 : 6 : 7
 ⚡ Hoghead.

£ s. d.
 17 : 6 : 7
 11

Gall. Qts.	190 : 12 : 5
57 : 3 — ⅓	15 : 17 : 8½ *

£ 206 : 10 : 1½ Ans.

* 57 Gallons 3 Quarts being ⅓ of a Hoghead, the ⅓ Part of the Product by 11 will be the Value of 57 Gallons 3 Quarts.

178 *Wine Measure.*

830. 1 Anchor, at £ 15 : 16 : 8
 ⚡ Hoghead.

$$\begin{array}{r}
 \text{Gall.} \quad 15 : 16 : 8 \\
 9 \text{ --- } \frac{1}{2} \quad \left| \begin{array}{l} 2 : 5 : 2\frac{1}{2} \\ 1 \text{ --- } \frac{1}{2} \quad \left| \begin{array}{l} 2 : 5 : 2\frac{1}{2} \\ 1 \text{ --- } \frac{1}{2} \end{array} \right. \\ \hline \text{£ } 2 : 10 : 3 \text{ Answer.} \end{array} \right.
 \end{array}$$

831. 1 Runlet, at £ 13 : 4 : 7
 ⚡ Hoghead.

$$\begin{array}{r}
 \text{£} \quad s. \quad d. \\
 13 : 4 : 7 \\
 \hline
 26 : 9 : 2 \\
 7 \\
 \hline
 \text{£ } 3 : 15 : 7 \text{ Answer.}
 \end{array}$$

18 Gallons are $\frac{2}{7}$ of a Hoghead.

832. 55 Gallons, at £ 21 : 17 : 9
 ⚡ Hoghead.

$$\begin{array}{r}
 \text{£} \quad s. \quad d. \\
 21 : 17 : 9 \\
 \hline
 43 : 15 : 6 \\
 3 \\
 \hline
 42 \text{ Gallons} \quad \left| \begin{array}{l} 14 : 11 : 10 \\ 7 \text{ --- } \frac{1}{2} \quad \left| \begin{array}{l} 2 : 8 : 7\frac{1}{2} \\ 6 \text{ --- } \frac{1}{2} \quad \left| \begin{array}{l} 2 : 8 : 7\frac{1}{2} \\ 6 \text{ --- } \frac{1}{2} \end{array} \right. \\ \hline \text{£ } 19 : 2 : 1\frac{1}{2} \text{ Answer.} \end{array} \right.
 \end{array}$$

£ 19 : 2 : 1½ Answer.

PRAC.

833. 1 Quart, at £ 24 ⚡ Hogs-
 head.

$$\begin{array}{r}
 \text{Gall.} \quad 24 \text{ £} \\
 7 \text{ --- } \frac{1}{2} \quad \left| \begin{array}{l} 2 : 13 : 4 \\ 1 \text{ --- } \frac{1}{2} \quad \left| \begin{array}{l} 2 : 13 : 4 \\ 1 \text{ --- } \frac{1}{2} \end{array} \right. \\ \hline \text{£ } 1 : 10\frac{1}{2} \text{ Answer.} \end{array} \right.
 \end{array}$$

834. 1 Hoghead, at 11. 7d. ⚡
 Quart.

$$\begin{array}{r}
 s. \quad d. \\
 1 : 7 \\
 \hline
 6 : 4 \text{ ⚡ Gallon.} \\
 9 \\
 \hline
 2 : 17 : - \left. \begin{array}{l} 63 \\ 7 \end{array} \right\}
 \end{array}$$

£ 19 : 19 : - ⚡ Hoghead.

O R,

63 Gall. one Hoghead.

4 : 252 Quarts at 11. 7d.

$$\begin{array}{r}
 s. \quad d. \\
 1 : 8 \text{ --- } \frac{1}{2} \quad \left| \begin{array}{l} 21 : - \\ 1 \text{ --- } \frac{1}{2} \quad \left| \begin{array}{l} 21 : - \\ 1 \text{ --- } \frac{1}{2} \end{array} \right. \\ \hline \text{£ } 19 : 19 \text{ Answer.} \end{array} \right.
 \end{array}$$

Examples

*Examples for the Learner's Exercise.**Answer.**Gall. Qts.*What cost 5 : 1, at £ 15 : 8 : 7 $\frac{1}{2}$ Hoghead? — £ 1 : 5 : 8 $\frac{1}{2}$ *Hbds. Gall.*At £ 10 $\frac{1}{2}$ Hoghead, what cost 17 : 7? — 171 : 2 : 2 $\frac{1}{2}$ *Hbds. Gall. Qts. Pint.*At £ 13 : 13 $\frac{1}{2}$ Hoghead, what cost 5 : 7 : 3 : 1 : 69 : 19 : 1 $\frac{1}{2}$ What cost 9 Gallons, at £ 13 : 19 $\frac{1}{2}$ Hoghead? — 1 : 19 : 10 $\frac{1}{2}$ *Gall. Qts.*At £ 18 : — : 6 $\frac{1}{2}$ Hoghead, what cost 10 : 2? — 3 : — : 1*Hbds. Gall. Qts.*What cost 17 : 15 : 3, at £ 17 : 15 : 6 $\frac{1}{2}$ Hogh. ? 306 : 12 : 4 $\frac{1}{2}$ What cost 21 Gallons, at £ 15 : 15 $\frac{1}{2}$ Hoghead? — 5 : 5 : —*Hbds. Gall. Qts.*At £ 26 : 17 : 3 $\frac{1}{2}$ Hoghead, what cost 107 : 31 : 2 : 2887 : 14 : 4 $\frac{1}{2}$ *Hbds. Gall.*At £ 13 : 8 $\frac{1}{2}$ Hoghead, what cost 31 : 42? — 424 : 6 : 8*Hbds. Gall.*

If 1 Hoghead costs £ 18 : 9 : 7 what cost 71 : 56? 1328 : 8 : 11

*Hbds. Gall. Qts. Pint.*What cost 79 : 55 : — : 1, at £ 12 : 8 : 9 $\frac{1}{2}$ Hogh. ? 993 : 8 : 10 $\frac{1}{2}$ *Gall. Qts.*What cost 57 : 3, at £ 29 : 7 : 9 $\frac{1}{2}$ Hoghead? — 26 : 18 : 8 $\frac{1}{2}$ What cost 10 Gallons, at £ 13 : 19 : 7 $\frac{1}{2}$ Hoghead? 2 : 4 : 4 $\frac{1}{2}$ At £ 19 $\frac{1}{2}$ Hoghead, what cost 18 Gallons? — 5 : 8 : 6 $\frac{1}{2}$ What cost 55 Gallons, at £ 15 : 19 $\frac{1}{2}$ Hoghead? — 13 : 18 : 7 $\frac{1}{2}$ At £ 23 : 17 : 9 $\frac{1}{2}$ Hoghead, what cost 1 Quart? — : 1 : 10 $\frac{1}{2}$ At 18 $\frac{1}{2}$ Quart, what is that $\frac{1}{2}$ Hoghead? — 18 : 18 : —

P R A C T I C E.

VI. LAND MEASURE.

9 Square Feet	}	make	1 Square Yard,
30 $\frac{1}{2}$ Yards			1 Pole.
40 Poles in length, and			1 Rood.
1 in breadth			1 Acre.
4 Roods			

TABLES of aliquot Parts.

I. One Acre the Integer.

Roods. Poles.

— : 16 — is —	$\frac{1}{16}$
— : 20 — — —	$\frac{1}{20}$
— : 32 — — —	$\frac{1}{32}$
1 : — — — —	$\frac{1}{4}$
2 : — — — —	$\frac{1}{2}$

II. One Rood the Integer.

Poles.

2 — is —	$\frac{1}{20}$
4 — — —	$\frac{1}{10}$
5 — — —	$\frac{1}{8}$
8 — — —	$\frac{1}{5}$
10 — — —	$\frac{1}{4}$
20 — — —	$\frac{1}{2}$

Examples.

Acres. Roods. Poles.
 835. 75 : — : 16, at 25s. d^{d}
 Acre.
 s. | 75 Acres.
 5 -- $\frac{1}{2}$ | 18 : 15 : —
 P. 16 -- $\frac{1}{16}$ | — : 2 : 6

 £ 93 : 17 : 6 *Answer.*

Acres. Roods. Poles.
 836. 87 : — : 20, at 30s. d^{d}
 Acre.
 s. | 87 Acres.
 10 -- $\frac{1}{2}$ | 43 : 10 : —
 P. 20 -- $\frac{1}{20}$ | — : 3 : 9

 £ 130 : 13 : 9 *Answer.*

Acres. Roods. Poles.
 837. 171 : — : 32, at 50s. d^{d}
 Acre.
 Acres. Roods. Poles.
 171 : — : 32
 2
 s. | 342
 10 -- $\frac{1}{2}$ | 85 : 10 : —
 P. 32 -- $\frac{1}{32}$ | — : 10 : —

 £ 428 : — : — *Answer.*

Acres. Rood.
 838. 875 : 1, at 27s. d^{d} Acre.
 s. | 875 Acres.
 6 -- $\frac{1}{2}$ | 262 : 10 : —
 1 -- $\frac{1}{10}$ | 43 : 15 : —
 R. 1 -- $\frac{1}{4}$ | — : 6 : 9

 £ 1181 : 11 : 9 *Answer.*

839. 175 Acres

TICE.

Acres. Rods.
839. 175 : 2, at 30s. $\frac{49}{100}$ Acra.

$$\begin{array}{r} s. \quad 175 \text{ Acres.} \\ 10 \text{ --- } \frac{1}{2} \quad 87 : 10 \\ R. 2 \text{ --- } \frac{1}{2} \quad \text{---} : 15 \end{array}$$

$\pounds 263 : 5$ Answer.

Acres. Rods. Poles.
840. 78 : — : 2, at $\pounds 4 : 4$ $\frac{49}{100}$ Acra.

$$\begin{array}{r} \text{Acres. Rods. Poles.} \\ 78 : \text{---} : 2 \\ 4 \\ s. \quad 312 \\ 4 \text{ --- } \frac{1}{2} \quad 15 : 12 : \text{---} \\ \text{---} : 1 : \text{---} \frac{1}{2} \end{array}$$

$\pounds 327 : 13 : \text{---} \frac{1}{2}$ Answer.

$$\begin{array}{r} R. P. \quad \pounds 4 : 4 : \text{---} \\ 1 : \text{---} \text{---} \frac{1}{4} \quad 1 : 1 : \text{---} \\ 2 \text{ --- } \frac{1}{10} \quad \text{---} : 1 : \text{---} \frac{1}{2} \end{array}$$

Acres. Rods. Poles.
841. 17 : — : 4, at $\pounds 3 : \text{---} : 6$ $\frac{49}{100}$ Acra.

$$\begin{array}{r} \text{Acres. Rods. Poles.} \\ 17 : \text{---} : 4 \\ 3 \end{array}$$

$$\begin{array}{r} d. \quad 51 \\ 6 \text{ --- } \frac{1}{10} \quad \text{---} : 8 : 6 \\ P. 4 \text{ ---} \quad \text{---} : 1 : 6 \end{array}$$

$\pounds 51 : 10 : \text{---}$ Answer.

$$\begin{array}{r} R. P. \quad \pounds 3 : \text{---} : 6 \\ 1 : \text{---} \text{---} \frac{1}{4} \quad \text{---} : 15 : 1 \frac{1}{2} \\ 4 \text{ --- } \frac{1}{10} \quad \text{---} : 1 : 6 \end{array}$$

Land Measure. 181

Acres. Rods. Poles.
842. 37 : — : 5, at 25s. $\frac{49}{100}$ Acra.

$$\begin{array}{r} s. \quad 37 \text{ Acres.} \\ 5 \text{ --- } \frac{1}{2} \quad 9 : 5 : \text{---} \\ P. 5 \text{ ---} \quad \text{---} : \text{---} : 9 \frac{1}{2} \end{array}$$

$\pounds 46 : 5 : 9 \frac{1}{2}$ Answer.

$$\begin{array}{r} R. P. \quad 25s. \\ 1 : \text{---} \text{---} \frac{1}{4} \quad 6 : 3 \\ 5 \text{ --- } \frac{1}{8} \quad \text{---} : 9 \frac{1}{2} \end{array}$$

Acres. Rods. Poles.
843. 45 : — : 8, at 37s. $\frac{49}{100}$ Acra.

$$\begin{array}{r} s. \quad 45 \text{ Acres.} \\ 10 \text{ --- } \frac{1}{2} \quad 22 : 10 : \text{---} \\ 6 \text{ --- } \frac{1}{10} \quad 13 : 10 : \text{---} \\ 1 \text{ --- } \frac{1}{10} \quad 2 : 5 : \text{---} \\ P. 8 \text{ ---} \quad \text{---} : 1 : 10 \end{array}$$

$\pounds 83 : 6 : 10$ Answer.

$$\begin{array}{r} R. P. \quad 37s. \\ 1 : \text{---} \text{---} \frac{1}{4} \quad 9 : 3 \\ 8 \text{ --- } \frac{1}{2} \quad 1 : 10 \end{array}$$

Acres. Rods. Poles.
844. 17 : — : 10, at $\pounds 2 : 13 : 6$ $\frac{49}{100}$ Acra.

$$\begin{array}{r} \text{Acres. Rods. Poles.} \\ 17 : \text{---} : 10 \\ 2 \end{array}$$

$$\begin{array}{r} s. d. \quad 34 \\ 12 \text{ --- } \frac{6}{10} \quad 10 : 4 : \text{---} \\ 1 : \text{---} \text{---} \frac{1}{10} \quad \text{---} : 17 : \text{---} \\ 6 \text{ --- } \frac{1}{4} \quad \text{---} : 8 : 6 \\ P. 10 \text{ ---} \quad \text{---} : 3 : 4 \end{array}$$

$\pounds 45 : 12 : 10$ Answer.

$$\begin{array}{r} R. P. \quad \pounds 2 : 13 : 6 \\ 1 : \text{---} \text{---} \frac{1}{4} \quad \text{---} : 13 : 4 \frac{1}{2} \\ 10 \text{ --- } \frac{1}{4} \quad \text{---} : 3 : 4 \end{array}$$

845. 17 Acres.

845. *Acres. Roods. Poles.*
 17 : 3 : 35, at £ 4 $\frac{1}{4}$ Acre.

Acres. Roods. Poles.
 17 : 3 : 35
 4

R. P.	68	
2 : ---	2 : ---	---
1 : ---	1 : ---	---
20 ---	---	10 : ---
10 ---	---	5 : ---
5 ---	---	2 : 6

£ 71 : 17 : 6 *Answer.*

846. *Acres. Roods. Poles.*
 713 : 3 : 39, at £ 3 : 17 : 6 $\frac{1}{4}$ Acre.

Acres. Roods. Poles.
 713 : 3 : 39
 3

s. d.	2139	
10 : ---	356 : 10 : ---	
5 : ---	178 : 5 : ---	
2 : 6 ---	89 : 2 : 6	
R. P.		
2 : ---	1 : 18 : 9	
1 : ---	--- : 19 : 4 $\frac{1}{2}$	
20 ---	--- : 9 : 8 $\frac{1}{2}$	
10 ---	--- : 4 : 10	
5 ---	--- : 2 : 5	
4 ---	--- : 1 : 11 $\frac{1}{2}$	

£ 2766 : 14 : 6 *Ans.*

• Of 20 Poles.

See Example 847.

CONTRACTION of Example 846.

847. *Acres. Roods. Poles.*
 713 : 3 : 39, at £ 3 : 17 : 6 $\frac{1}{4}$ Acre.
 4 £ wanting 713 Half Crowns.

s. d.	2852	
2 : 6 ---	89 : 2 : 6	} <i>Subtract.</i>

R. P.	2762 : 17 : 6
2 : ---	1 : 18 : 9
1 : ---	--- : 19 : 4 $\frac{1}{2}$
20 ---	--- : 9 : 8 $\frac{1}{2}$
10 ---	--- : 4 : 10
5 ---	--- : 2 : 5
4 ---	--- : 1 : 11 $\frac{1}{2}$

£ 2766 : 14 : 6 *Answer.*

Examples

Examples for the Learner's Exercise.

Answer.

Acres. Roods. Poles.

What is the Yearly Rent of 87 : — : 15, at } £ 115 : 8 : 1½
 26s. 6d. $\frac{1}{4}$ Acre? — — —

Acres. Roods. Poles.

What is the Yearly Rent of 78 : — : 20, at 27s. } 105 : 9 : 4½
 $\frac{1}{4}$ Acre? — — —

Acres. Roods. Poles.

What is the Assessment on 81 : — : 32, at 3s. $\frac{1}{4}$ } 12 : 3 : 7
 Acre? — — —

Acres. Rood.

What is the Yearly Rent of 7 : 1, at 19s. $\frac{1}{4}$ Acre? — 6 : 17 : 9

Acres. Roods.

What is the Yearly Rent of 107 : 2, at 45s. $\frac{1}{4}$ Acre? 241 : 17 : 6

Acres. Roods. Poles.

What is the Yearly Rent of 97 : — : 2, at 28s. } 135 : 16 : 4
 $\frac{1}{4}$ Acre? — — —

Acres. Roods. Poles.

What is the Yearly Rent of 971 : — : 4, at } 1529 : 7 : 3½
 31s. 6d. $\frac{1}{4}$ Acre? — — —

Acres. Roods. Poles.

What is the Yearly Rent of 171 : — : 5, at 17s. 9d. } 151 : 15 : 9½
 $\frac{1}{4}$ Acre? — — —

Acres. Roods. Poles.

What is the Yearly Rent of 800 : — : 8, at } 1000 : 1 : 3
 25s. $\frac{1}{4}$ Acre? — — —

Acres. Roods. Poles.

What is the Yearly Rent of 91 : — : 10, at 25s. } 113 : 16 : 6½
 $\frac{1}{4}$ Acre? — — —

Acres. Roods. Poles.

What is the Yearly Rent of 87 : 3 : 35, at 39s. 6d. } 173 : 15 : 8½
 $\frac{1}{4}$ Acre? — — —

Acres. Roods. Poles.

What is the Yearly Rent of 179 : 3 : 39, at } 239 : 19 : 10
 26s. 8d. $\frac{1}{4}$ Acre? — — —



PRACTICE.

VII. DRY MEASURE.

2 Pints	}	make	{	1 Quart.
2 Quarts				1 Pottle.
2 Pottles				1 Gallon.
2 Gallons				1 Peck.
4 Pecks				1 Bushel.
3 Bushels				1 Sack of Coals.
4 Bushels				1 Sack of Corn.
8 Bushels				1 Quarter of Corn.
12 Sacks, or 36 Bushels				1 Chaldron of Coals.

TABLES of aliquot Parts.

I. One Chaldron the Integer.

Sacks. Bush. Pecks.

1	:	—	:	—	is	—	$\frac{1}{12}$
1	:	2	:	—	—	—	$\frac{1}{8}$
2	:	—	:	—	—	—	$\frac{1}{6}$
3	:	—	:	—	—	—	$\frac{1}{4}$
4	:	—	:	—	—	—	$\frac{1}{3}$
6	:	—	:	—	—	—	$\frac{1}{2}$
3	:	—	:	—	—	—	$\frac{1}{2}$
4	:	—	:	—	—	—	$\frac{1}{3}$
4	:	2	:	—	—	—	$\frac{1}{3}$
6	:	—	:	—	—	—	$\frac{1}{2}$
9	:	—	:	—	—	—	$\frac{1}{4}$
12	:	—	:	—	—	—	$\frac{1}{3}$
18	:	—	:	—	—	—	$\frac{1}{2}$

II. One Sack the Integer.

Bush. Pecks.

—	:	1	— is —	$\frac{1}{2}$
—	:	2	—	$\frac{1}{3}$
—	:	3	—	$\frac{1}{4}$
1	:	—	—	$\frac{1}{3}$

III. One Bushel the Integer.

Pecks.

1	— is —	$\frac{1}{4}$
2	—	$\frac{1}{2}$

IV. One Quarter the Integer.

Bushels.

1	— is —	$\frac{1}{8}$
2	—	$\frac{1}{4}$
4	—	$\frac{1}{2}$

Examples.

Examples.

Chald. Sacks.

848. 15 : 7, at £ 1 : 18 $\frac{1}{2}$ Chaldron.

£ 1 : 18

5 × 3 = 15

9 : 10
3

Sacks. 28 : 10
6 --- $\frac{1}{2}$: 19 : —
1 --- $\frac{1}{8}$: 3 : 2

£ 29 : 12 : 2 Answer.

Chald. Bush.

849. 79 : 31, at £ 1 : 12 : 6 Chaldron.

79 Chald.
12 : — --- $\frac{6}{10}$ 47 : 8 : —
6 --- $\frac{1}{10}$ 1 : 19 : 6
Bush. 18 --- $\frac{1}{2}$: 16 : 3
12 --- $\frac{1}{4}$: 10 : 10
1 --- $\frac{1}{12}$: — : 10 $\frac{1}{2}$

£ 129 : 15 : 5 $\frac{1}{2}$ Answer.

Chald. Sacks.

850. 15 : 11, at 35s. $\frac{1}{2}$ Chaldron.

15 Chald.
10 --- $\frac{1}{2}$ 7 : 10 : —
5 --- $\frac{1}{4}$ 3 : 15 : —
Sacks. 6 --- $\frac{1}{8}$: 17 : 6
4 --- $\frac{1}{16}$: 11 : 8
1 --- $\frac{1}{32}$: 2 : 11

£ 27 : 17 : 1 Answer.

Chald. Sacks.

851. 87 : 35, at 34s. $\frac{1}{2}$ Chaldron.

87 Chald.
14 --- $\frac{1}{2}$ 60 : 18 : —
Bush. 18 --- $\frac{1}{4}$: 17 : —
12 --- $\frac{1}{8}$: 11 : 4
4 --- $\frac{1}{16}$: 3 : 9 $\frac{1}{2}$
1 --- $\frac{1}{32}$: — : 11 $\frac{1}{2}$

£ 149 : 11 : — $\frac{1}{2}$ Ans.

Chald. Bush. Pecks.

852. 7 : 35 : 3, at 36s. $\frac{1}{2}$ Chaldron.

£ 1 : 16
7

B. P. 12 : 12
18 : — --- $\frac{1}{2}$: 18 : —
12 : — --- $\frac{1}{4}$: 12 : —
3 : — --- $\frac{1}{8}$: 3 : —
2 : — --- $\frac{1}{16}$: 2 : —
2 --- $\frac{1}{32}$: — : 9

£ 14 : 7 : 9 Answer.

• Of 12 Bushels.

† Of 3 Bushels.

Sacks. Bush.

853. 7 : 2, at £ 1 : 14 : 6 Chaldron.

£ 1 : 14 : 6

S. B. 6 : — --- $\frac{1}{2}$: 17 : 3
1 : — --- $\frac{1}{4}$: 2 : 10 $\frac{1}{2}$
1 --- $\frac{1}{8}$: — : 11 $\frac{1}{2}$
1 --- $\frac{1}{16}$: — : 11 $\frac{1}{2}$

7 : 2 £ 1 : 2 : — $\frac{1}{2}$ Answer.

186 Dry Measure.

Busb. Pecks.

854. 1 : 3, at £ 1 : 16 d^{d} Chaldron.

$$\begin{array}{r}
 \text{S. B. P.} \quad \text{£ 1 : 16} \\
 1 : - : - : - : \frac{1}{12} \quad \text{--- : 3} \\
 1 : - : - : \frac{1}{12} \quad \text{--- : 1 : -} \\
 2 : - : \frac{1}{12} \quad \text{--- : - : 6} \\
 1 : - : \frac{1}{12} \quad \text{--- : - : 3} \\
 \hline
 \text{£ --- : 1 : 9 Ans.}
 \end{array}$$

Quar. Busb.

855. 3 : 1, at 16s. 7d. d^{d} Quar-ter.

$$\begin{array}{r}
 s. \quad d. \\
 16 : 7 \\
 3
 \end{array}$$

$$\begin{array}{r}
 \text{Busb.} \quad \begin{array}{|l} 2 : 9 : 9 \\ 1 - \frac{1}{8} - : 2 : - \frac{1}{4} \end{array} \\
 \hline
 \text{£ 2 : 11 : 9\frac{1}{2} Answer.}
 \end{array}$$

Quar. Busb.

856. 7 : 2, at 18s. 7d. d^{d} Quar-ter.

$$\begin{array}{r}
 s. \quad d. \\
 18 : 7 \\
 7
 \end{array}$$

$$\begin{array}{r}
 \text{Busb.} \quad \begin{array}{|l} 6 : 10 : 1 \\ 2 - \frac{1}{4} - : 4 : 7\frac{1}{2} \end{array} \\
 \hline
 \text{£ 6 : 14 : 8\frac{1}{2} Answer.}
 \end{array}$$

Quar. Busb.

857. 11 : 4, at 15s. 10d. d^{d} Quarter.

$$\begin{array}{r}
 s. \quad d. \\
 15 : 10 \\
 11
 \end{array}$$

$$\begin{array}{r}
 \text{Busb.} \quad \begin{array}{|l} 8 : 14 : 2 \\ 4 - \frac{1}{2} - : 7 : 11 \end{array} \\
 \hline
 \text{£ 9 : 2 : 1 Answer.}
 \end{array}$$

PRAC.

Quar. Busb.

858. 37 : 7, at 14s. 9d. d^{d} Quarter.

Quar. Busb.

$$37 : 7$$

$$\begin{array}{r}
 s. \quad d. \\
 14 : - : - : \frac{7}{10} \quad \begin{array}{|l} 25 : 18 : - \\ 6 : - : 18 : 6 \\ 3 : - : 9 : 3 \\ \text{Busb. 4} : - : 7 : 4\frac{1}{2} \\ 2 : - : 3 : 8\frac{1}{4} \\ 1 : - : 1 : 10 \end{array} \\
 \hline
 \text{£ 27 : 18 : 7\frac{1}{2} Answer.}
 \end{array}$$

Busb. Pecks.

859. 17 : 3, at 3s. 4d. d^{d} Bushel.

Busb. Pecks.

$$17 : 3$$

$$\begin{array}{r}
 s. \quad d. \\
 3 : 4 - : - : \frac{1}{2} \quad \begin{array}{|l} 2 : 16 : 8 \\ \text{Pecks. 2} : - : 1 : 8 \\ 1 : - : - : 10 \end{array} \\
 \hline
 \text{£ 2 : 19 : 2 Answer.}
 \end{array}$$

Quar. Busb. Pecks.

860. 3 : 7 : 3, at 15s. 9d. d^{d} Quarter.

$$\begin{array}{r}
 s. \quad d. \\
 15 : 9 \\
 3
 \end{array}$$

$$\begin{array}{r}
 \text{B. P.} \quad \begin{array}{|l} 2 : 7 : 3 \\ 4 : - : - : \frac{1}{2} \\ 2 : - : - : \frac{1}{2} \\ 1 : - : - : \frac{1}{2} \\ 2 : - : - : \frac{1}{2} \\ 1 : - : - : \frac{1}{2} \end{array} \\
 \hline
 \text{£ 3 : 2 : 5\frac{1}{2} Answer.}
 \end{array}$$

Examples

Examples for the Learner's Exercise.

Answer.

Chald. Sacks.

At 30s. q^{r} Chaldron, what cost 16 : 9? — £ 25 : 2 : 6

Chald. Bush.

What cost 71 : 31, at £ 1 : 17 : 3 q^{r} Chaldron? 133 : 16 : 9 $\frac{1}{2}$

Chald. Sacks.

At 35s. q^{r} Chaldron, what cost 13 : 11? — 24 : 7 : 1

Chald. Bush.

What cost 71 : 35, at 31s. q^{r} Chaldron? — 111 : 11 : 1 $\frac{1}{2}$

Chald. Bush. Pecks.

At 32s. q^{r} Chaldron, what cost 8 : 33 : 3? — 14 : 6 : —

Sacks. Bush.

What cost 7 : 2, at £ 1 : 13 : 6 q^{r} Chaldron? — 1 : 1 : 4 $\frac{1}{2}$

Bush. Pecks.

At 39s. q^{r} Chaldron, what cost 1 : 3? — — : 1 : 10 $\frac{1}{2}$

Qrs. Bush.

At 16s. 9d. q^{r} Quarter, what cost 7 : 1? — 5 : 19 : 4

Qrs. Bush.

At 17s. q^{r} Quarter, what cost 8 : 2? — 7 : — : 3

Qrs. Bush.

At 19s. 8d. q^{r} Quarter, what cost 13 : 4? — 13 : 5 : 6

Qrs. Bush.

What cost 87 : 7, at 15s. q^{r} Quarter? — 65 : 18 : 1 $\frac{1}{2}$

Bush. Pecks.

At 3s. 7d. q^{r} Bushel, what cost 11 : 3? — 2 : 2 : 1 $\frac{1}{2}$

Qrs. Bush. Pecks.

At 17s. 8d. q^{r} Quarter, what cost 5 : 7 : 3? — 5 : 5 : 5 $\frac{1}{2}$



P R A C T I C E.

PART VIII. SIMPLE INTEREST.

Examples.

71. THE Yearly Interest of the following Sums is required.

861. £751 : 17 : 6 at £5 $\frac{1}{10}$ Cent.

$$\begin{array}{r} \text{£ } 751 : 17 : 6 \\ 5 \text{ -- } \frac{1}{10} \overline{) 37 : 11 : 10\frac{1}{2}} \text{ Answer.} \end{array}$$

862. £800 : 17 : 6 at £4 $\frac{1}{10}$ Cent.

$$\begin{array}{r} \text{£ } 800 : 17 : 6 \\ 20 \text{ -- } \frac{1}{5} \overline{) 160 : 3 : 6} \\ 4 \text{ -- } \frac{1}{5} \overline{) 32 : - : 8\frac{1}{4}} \text{ Answer.} \end{array}$$

863. £713 : 16 : 8 at £2 $\frac{1}{2}$ $\frac{1}{10}$ Cent.

$$\begin{array}{r} \text{£ } 713 : 16 : 8 \\ 10 \text{ -- } \frac{1}{10} \overline{) 71 : 7 : 8} \\ 2\frac{1}{2} \text{ -- } \frac{1}{4} \overline{) 17 : 16 : 11} \text{ Answer.} \end{array}$$

864. £917 : 6 : 8 at £2 $\frac{1}{10}$ Cent.

$$\begin{array}{r} \text{£ } 917 : 6 : 8 \\ 10 \text{ -- } \frac{1}{10} \overline{) 91 : 14 : 8} \\ 3 \text{ -- } \frac{1}{5} \overline{) 18 : 6 : 11} \text{ Answer.} \end{array}$$

865. £712 : 16 : 5 at £1 $\frac{1}{2}$ $\frac{1}{10}$ Cent.

$$\begin{array}{r} \text{£ } 712 : 16 : 5 \\ 10 \text{ -- } \frac{1}{10} \overline{) 71 : 5 : 7\frac{1}{2}} \\ 1\frac{1}{2} \text{ -- } \frac{1}{5} \overline{) 18 : 2\frac{1}{2}} \text{ Answer.} \end{array}$$

866. £912 : 18 : 9 at £1 $\frac{1}{10}$ Cent.

$$\begin{array}{r} \text{£ } 912 : 18 : 9 \\ 10 \text{ -- } \frac{1}{10} \overline{) 91 : 5 : 10\frac{1}{2}} \\ 1 \text{ -- } \frac{1}{10} \overline{) 9 : 2 : 7} \text{ Answer.} \end{array}$$

867. £871 : 16 : 7, at £ $\frac{1}{2}$ $\frac{1}{10}$ Cent.

$$\begin{array}{r} \text{£ } 871 : 16 : 7 \\ 10 \text{ -- } \frac{1}{10} \overline{) 87 : 3 : 7\frac{1}{2}} \\ \frac{1}{2} \text{ -- } \frac{1}{10} \overline{) 4 : 7 : 2} \text{ Answer.} \end{array}$$

868. £731 : 18 : 9 at £ $\frac{1}{2}$ $\frac{1}{10}$ Cent.

$$\begin{array}{r} \text{£ } 731 : 18 : 9 \\ 5 \text{ -- } \frac{1}{10} \overline{) 36 : 11 : 11\frac{1}{2}} \\ \frac{1}{2} \text{ -- } \frac{1}{10} \overline{) 1 : 10 : 7} \text{ Answer.} \end{array}$$

869. £873 : 14 : 8 at £ $\frac{1}{2}$ $\frac{1}{10}$ Cent.

$$\begin{array}{r} \text{£ } 873 : 14 : 8 \\ 5 \text{ -- } \frac{1}{10} \overline{) 43 : 13 : 8\frac{1}{2}} \\ \frac{1}{2} \text{ -- } \frac{1}{10} \overline{) 4 : 7 : 4\frac{1}{2}} \\ \frac{1}{4} \text{ -- } \frac{1}{2} \overline{) 2 : 3 : 8} \} \text{ Add.} \\ \frac{1}{2} \overline{) 6 : 11 : -\frac{1}{2}} \text{ Answer.} \end{array}$$

TICE.

870. £ 87 : 17 : 9 at £ 5½ $\frac{d}{c}$
Cent.

$$\begin{array}{r} \text{£} \\ 5 \text{ --- } \frac{1}{10} \left| \begin{array}{l} 4 : 7 : 10\frac{1}{2} \\ \text{---} : 8 : 9\frac{1}{2} \end{array} \right\} \text{Add.} \\ \frac{1}{2} \text{ --- } \frac{1}{10} \text{ ---} \\ \hline 5\frac{1}{2} \quad \text{£ 4 : 16 : } 7\frac{1}{2} \text{ Answer.} \end{array}$$

871. £ 971 : 13 : 2 at £ 5½ $\frac{d}{c}$
Cent.

$$\begin{array}{r} \text{£} \\ 5 \text{ --- } \frac{1}{10} \left| \begin{array}{l} 48 : 11 : 7\frac{1}{2} \\ \text{---} : 2 : 6\frac{1}{2} \end{array} \right\} \text{Add.} \\ \frac{1}{2} \text{ --- } \frac{1}{10} \text{ ---} \\ \hline 5\frac{1}{2} \quad \text{£ 51 : --- : } 2\frac{1}{2} \text{ Answer.} \end{array}$$

872. £ 179 : 16 : 10 at £ 5½ $\frac{d}{c}$
Cent.

$$\begin{array}{r} \text{£} \\ 5 \text{ --- } \frac{1}{10} \left| \begin{array}{l} 8 : 19 : 10 \\ \text{---} : 17 : 11\frac{1}{2} \\ \text{---} : 8 : 11\frac{1}{2} \end{array} \right\} \text{Add.} \\ \frac{1}{2} \text{ --- } \frac{1}{10} \text{ ---} \\ \hline 5\frac{1}{2} \quad \text{£ 10 : 6 : } 9\frac{1}{2} \text{ Answer.} \end{array}$$

873. £ 571 : 18 : 8 at £ 4½ $\frac{d}{c}$
Cent.

$$\begin{array}{r} \text{£} \quad d. \\ 571 : 18 : 8 \\ 20 \text{ --- } \frac{1}{5} \left| \begin{array}{l} 114 : : 8 \\ \text{---} : : 6\frac{1}{2} \\ \text{---} : : 2\frac{1}{2} \end{array} \right\} \text{Add.} \\ 4 \text{ --- } \frac{1}{5} \text{ ---} \\ \frac{1}{2} \text{ --- } \frac{1}{5} \text{ ---} \\ \hline 4\frac{1}{2} \quad \text{£ 25 : 1 : } 8\frac{1}{2} \text{ Answer.} \end{array}$$

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874. £ 107 : 17 : 8 at £ 4½ $\frac{d}{c}$
Cent.

$$\begin{array}{r} \text{£} \\ 5 \text{ --- } \frac{1}{10} \left| \begin{array}{l} 5 : 7 : 10\frac{1}{2} \\ \text{---} : 5 : 4\frac{1}{2} \end{array} \right\} \text{Subtract} \\ \frac{1}{2} \text{ --- } \frac{1}{10} \text{ ---} \\ \hline 4\frac{1}{2} \quad \text{£ 5 : 2 : } 6 \text{ Answer.} \end{array}$$

875. £ 473 : 15 : 7 at £ 2½ $\frac{d}{c}$
Cent.

$$\begin{array}{r} \text{£} \\ 10 \text{ --- } \frac{1}{10} \left| \begin{array}{l} 47 : 7 : 6\frac{1}{2} \\ \text{---} : 11 : 16 : 10\frac{1}{2} \\ \text{---} : 1 : 3 : 8\frac{1}{2} \end{array} \right\} \text{Add.} \\ 2\frac{1}{2} \text{ --- } \frac{1}{10} \text{ ---} \\ \frac{1}{4} \text{ --- } \frac{1}{10} \text{ ---} \\ \hline 2\frac{1}{4} \quad \text{£ 16 : --- : } 6\frac{1}{4} \text{ Answer.} \end{array}$$

876. £ 507 : 12 : 8 at £ 2½ $\frac{d}{c}$
Cent.

$$\begin{array}{r} \text{£} \\ 10 \text{ --- } \frac{1}{10} \left| \begin{array}{l} 50 : 15 : 3 \\ \text{---} : 10 : 3 : \text{---} \\ \text{---} : 1 : 5 : 4\frac{1}{2} \end{array} \right\} \text{Add.} \\ 2 \text{ --- } \frac{1}{10} \text{ ---} \\ \frac{1}{4} \text{ --- } \frac{1}{10} \text{ ---} \\ \hline 2\frac{1}{4} \quad \text{£ 11 : 8 : } 5 \text{ Answer.} \end{array}$$

877. £ 384 : 12 : 8 at £ 1½ $\frac{d}{c}$
Cent.

$$\begin{array}{r} \text{£} \\ 10 \text{ --- } \frac{1}{10} \left| \begin{array}{l} 38 : 9 : 3 \\ \text{---} : 3 : 16 : 11 \\ \text{---} : 1 : 18 : 5\frac{1}{2} \end{array} \right\} \text{Add.} \\ 1 \text{ --- } \frac{1}{10} \text{ ---} \\ \frac{1}{2} \text{ --- } \frac{1}{10} \text{ ---} \\ \hline 1\frac{1}{2} \quad \text{£ 5 : 15 : } 4\frac{1}{2} \text{ Answer.} \end{array}$$

878. £ 879 : 15 : 2 at £ 1½ $\frac{d}{c}$
Cent.

$$\begin{array}{r} \text{£} \\ 10 \text{ --- } \frac{1}{10} \left| \begin{array}{l} 87 : 19 : 6 \\ \text{---} : 17 : 19 : 10 \\ \text{---} : 2 : 4 : 11\frac{1}{2} \end{array} \right\} \text{Add.} \\ 2 \text{ --- } \frac{1}{10} \text{ ---} \\ \frac{1}{2} \text{ --- } \frac{1}{10} \text{ ---} \\ \hline 1\frac{1}{2} \quad \text{£ 15 : 7 : } 11\frac{1}{2} \text{ Answer.} \end{array}$$

THE foregoing Examples may be performed
T H U S.

Multiply the Principal by the Rate of Interest $\frac{1}{100}$ Cent. $\frac{1}{100}$ Annum, divide the Product by one Hundred, [which is performed by cutting off the two Figures on the Right Hand in the Place of Pounds, those on the Left are the Quotient.]

Multiply the Remainder of the Pounds [if there be any] by Twenty, adding the Shillings thereto, then divide by a Hundred as above.

Multiply the Remainder of the Shillings by Twelve, taking in the Pence, and divide by a Hundred as before.

Multiply the Remainder of the Pence by Four, taking in the Farthings, and divide by a Hundred as before.

Examples.

879. £ 879 : 19 : 11 at £ 3 $\frac{1}{4}$ Cent.

£ 879 : 19 : 11
3

£ 26 | 39 : 19 : 9
20

s. 7 | 99
12

d. 11 | 97
4

far. 3 | 88

Answer £ 26 : 7 : 11 $\frac{1}{2}$

880. £ 713 : 17 : 9 at £ 3 $\frac{1}{4}$ Cent.

£ 713 : 17 : 9
3

$\frac{1}{4} - \frac{1}{4}$ | 2141 : 13 : 3 } Add.
178 : 9 : 5 $\frac{1}{4}$

£ 23 | 20 : 2 : 8 $\frac{1}{4}$
20

s. 4 | 02
12

d. — | 32
4

far. 1 | 29

Answer £ 23 : 4 : — $\frac{1}{4}$

By the foregoing Method.

£ 879 : 19 : 11 at £ 3 $\frac{1}{4}$ Cent.

£	s.	d.	
£			879 : 19 : 11
10 -- $\frac{1}{10}$			87 : 19 : 11 $\frac{1}{4}$
2 -- $\frac{1}{2}$			17 : 11 : 11 $\frac{1}{4}$
1 -- $\frac{1}{2}$			8 : 15 : 11 $\frac{1}{4}$
3			£ 26 : 7 : 11 $\frac{1}{2}$ Answer.

By the foregoing Method.

£ 713 : 17 : 9 at £ 3 $\frac{1}{4}$ Cent.

£	s.	d.	
£			713 : 17 : 9
10 -- $\frac{1}{10}$			71 : 7 : 9 $\frac{1}{4}$
2 -- $\frac{1}{2}$			14 : 5 : 6 $\frac{1}{4}$
1 -- $\frac{1}{2}$			7 : 2 : 9 $\frac{1}{4}$
$\frac{1}{4} - \frac{1}{4}$			1 : 15 : 8 $\frac{1}{4}$
3 $\frac{1}{4}$			£ 23 : 4 : — Answer.

TICE.

Simple Interest. 191

881. £ 837 : — : 7 at £ 3½ $\frac{1}{4}$ Cent.

By the foregoing Method.

£ 837 : — : 7
3

£ 837 : — : 7 at £ 3½ $\frac{1}{4}$ Cent.

$\frac{1}{2} - \frac{1}{4}$ $\left\{ \begin{array}{l} 2511 : 1 : 9 \\ 418 : 10 : 3\frac{1}{2} \end{array} \right\}$ Add.

£ s. d.
837 : — : 7
10 -- $\frac{1}{10}$ $\left\{ \begin{array}{l} 83 : 14 : -\frac{1}{2} \\ 20 : 18 : 0 \\ 8 : 7 : 4\frac{1}{2} \end{array} \right\}$ Add.

£ 29 | 29 : 12 : —
20

3½ £ 29 : 5 : 10½ Answer.

s. 59½
12

d. 1104

Answer £ 29 : 5 : 11

882. £ 761 at £ 3½ $\frac{1}{4}$ Cent.
3

By the foregoing Method.

£ 761 at £ 3½ $\frac{1}{4}$ Cent.

$\frac{1}{2} - \frac{1}{4}$ $\left\{ \begin{array}{l} 2283 \\ 570 : 15 \end{array} \right\}$ Add.

£ 761
10 -- $\frac{1}{10}$ $\left\{ \begin{array}{l} 76 : 2 \\ 19 : — : 6 \\ 7 : 12 : 2\frac{1}{2} \\ 1 : 18 : -\frac{1}{2} \end{array} \right\}$ Add.

£ 28 | 53 : 15
20

3½ £ 28 : 10 : 8½ Answer.

s. 1075
12

d. 900

Answer £ 28 : 10 : 9

883. £ 87 : 13 : 9 at £ 4½ $\frac{1}{4}$ Cent.

By the foregoing Method.

£ 87 : 13 : 9 at £ 4½ $\frac{1}{4}$ Cent.

£ 87 : 13 : 9
4

$\frac{1}{2} - \frac{1}{4}$ $\left\{ \begin{array}{l} 350 : 15 : — \\ 21 : 18 : 5\frac{1}{4} \end{array} \right\}$ Add.

£ s. d.
87 : 13 : 9
10 -- $\frac{1}{10}$ $\left\{ \begin{array}{l} 8 : 15 : 4\frac{1}{2} \\ 2 : 3 : 10 \\ 1 : 1 : 11 \\ — : 8 : 9 \end{array} \right\}$ Add.

£ 372 : 13 : 5½
20

4½ £ 3 : 14 : 6 Answer.

s. 1453
12

d. 641
4

ar. 165

Answer £ 3 : 14 : 6½

Examples

*Examples for the Learner's Exercise.**Answer.*

What is the Interest of £ 871 for a Year, at £ 5	£ 43 : 11 : —
$\frac{1}{2}$ Cent. $\frac{1}{2}$ Annum?	
What is the Annual Interest of £ 179 : 8, at £ 4	7 : 3 : 6
Cent. $\frac{1}{2}$ Annum?	
What is the Yearly Interest of £ 725, at £ 2½	18 : 2 : 6
Cent. $\frac{1}{2}$ Annum?	
At £ 2 $\frac{1}{2}$ Cent. $\frac{1}{2}$ Annum, what is the Annual Interest of £ 713 : 5 : 8?	14 : 5 : 3½
What is the Yearly Interest of £ 765, at £ 1½	9 : 11 : 3
Cent. $\frac{1}{2}$ Annum?	
What is the Annual Interest of £ 176 : 18, at £ 1	1 : 15 : 4½
$\frac{1}{2}$ Cent. $\frac{1}{2}$ Annum?	
At £ ½ Cent. $\frac{1}{2}$ Annum, what is the Annual Interest of £ 8713 : 7 : 9?	65 : 7 : —
What is the Yearly Interest of £ 871 : 14 : 8, at £ ½	4 : 8 : 2
$\frac{1}{2}$ Cent. $\frac{1}{2}$ Annum?	
At £ ½ Cent. $\frac{1}{2}$ Annum, what is the Yearly Interest of £ 741 : 17 : 6?	1 : 17 : 1
Find the Interest of £ 87 : 13 : 7 for a Year, at £ 5½	4 : 12 : —½
$\frac{1}{2}$ Cent. $\frac{1}{2}$ Annum?	
At £ 5½ Cent. $\frac{1}{2}$ Annum, what is the Yearly Interest of £ 837 : 19 : 8?	46 : 1 : 9½
Find the Interest of £ 871 : 17 : 8 for a Year, at £ 5½	50 : 2 : 7½
$\frac{1}{2}$ Cent. $\frac{1}{2}$ Annum?	
Find the Interest of £ 831 : 17 : 6 for a Year, at £ 4½	37 : 8 : 8½
$\frac{1}{2}$ Cent. $\frac{1}{2}$ Annum?	
At £ 4½ Cent. $\frac{1}{2}$ Annum, what is the Interest of £ 817 : 13 for a Year?	38 : 16 : 9
Find the Interest of £ 187 : 15 : 8 for a Year, at £ 1	5 : 3 : 3½
$\frac{1}{2}$ Cent. $\frac{1}{2}$ Annum?	
Find the Interest of £ 871 : 14 : 7 for a Year, at £ 2½	19 : 12 : 3½
$\frac{1}{2}$ Cent. $\frac{1}{2}$ Annum?	
What is the Interest of £ 379 : 14 : 7 for a Year, at £ 1½	5 : 13 : 11
Cent. $\frac{1}{2}$ Annum?	
Find the Yearly Interest of £ 871 : 16 : 8, at £ 1½	15 : 5 : 1
$\frac{1}{2}$ Cent. $\frac{1}{2}$ Annum?	
What is the Yearly Interest of £ 713 : 14, at £ 3	21 : 8 : 2½
$\frac{1}{2}$ Cent. $\frac{1}{2}$ Annum?	
Find the Interest of £ 817 : 17 : 6 for a Year, at £ 3½	26 : 11 : 7½
$\frac{1}{2}$ Cent. $\frac{1}{2}$ Annum?	
Find the Interest of £ 917 : 6 : 2 for a Year, at £ 3½	32 : 2 : 1½
$\frac{1}{2}$ Cent. $\frac{1}{2}$ Annum?	
Find the Yearly Interest of £ 177 : 17 : 2, at £ 3½	6 : 13 : 4½
$\frac{1}{2}$ Cent. $\frac{1}{2}$ Annum?	
At £ ½ Cent. $\frac{1}{2}$ Annum, what is the Interest of £ 870 : 12 : 7 for a Year?	37 : 5 : 1½

Commission, Insurance, Purchasing of Stocks, and Brokerage, may be performed in the same manner.

P R A C

P R A C T I C E.

IX. COMMISSION.

Examples.

WHAT is the Commission of the following Sums.

884. £ 327, at £ 2½ $\frac{1}{10}$ Cent.

£	s.	d.	
£	327	: —	: —
$\frac{10}{10}$	$-\frac{1}{10}$	32	: 14 : —
$\frac{2}{10}$	$-\frac{1}{10}$	8	: 3 : 0
$\frac{1}{10}$	$-\frac{1}{10}$	—	: 8 : 2
} Add.			
$\frac{2}{10}$	£ 8	: 11	: 8 Answer.

885. £ 907, at £ 3½ $\frac{1}{10}$ Cent.

£	s.	d.	
£	907	: —	: —
$\frac{10}{10}$	$-\frac{1}{10}$	90	: 14 : —
$\frac{2}{10}$	$-\frac{1}{10}$	22	: 13 : 0
$\frac{1}{10}$	$-\frac{1}{10}$	11	: 6 : 9
$\frac{1}{10}$	$-\frac{1}{10}$	1	: 2 : 8
} Add.			
$\frac{3}{10}$	£ 35	: 2	: 11 Answer.

P R A C T I C E.

X. INSURANCE.

Examples.

WHAT is the Insurance of the following Sums.

886. £ 379 : 16, at £ 2½ $\frac{1}{10}$ Cent.

£	s.	d.	
£	379	: 16	: —
$\frac{10}{10}$	$-\frac{1}{10}$	37	: 19 : 7
$\frac{2}{10}$	$-\frac{1}{10}$	7	: 11 : 11
$\frac{1}{10}$	$-\frac{1}{10}$	—	: 18 : 11½
$\frac{1}{10}$	$-\frac{1}{10}$	—	: 9 : 5½
} Add.			
$\frac{2}{10}$	£ 9	: —	: 4½ Answer.

887. £ 950, at £ 3½ $\frac{1}{10}$ Cent.

£	s.	d.	
£	950	: —	: —
$\frac{10}{10}$	$-\frac{1}{10}$	95	: — : —
$\frac{2}{10}$	$-\frac{1}{10}$	23	: 15 : —
$\frac{1}{10}$	$-\frac{1}{10}$	1	: 17 : 6
$\frac{1}{10}$	$-\frac{1}{10}$	1	: 3 : 9
} Add.			
$\frac{3}{10}$	£ 36	: 16	: 3 Answer.

P R A C T I C E.

XI. *PURCHASING of STOCKS.**Examples.*

WHAT is the Purchase of the following Stocks.

888. £ 537 : 10 Bank Stock, at
£ 131½ *per Cent.*

£	s.	d.	
537	10		
25	—	—	134 : 7 : 6
5	—	—	26 : 17 : 6
1	5	—	6 : 14 : 4½

£ 705 : 9 : 4½ *Answer.*889. £ 769 India Stock, at £ 127½
per Cent.

£	s.	d.	
769			
20	—	—	153 : 16 : —
5	—	—	38 : 9 : —
2	—	—	15 : 7 : 7
5	—	—	1 : 18 : 5½
2	6	—	— : 19 : 2½

£ 979 : 10 : 2½ *Ans.*

* Of 2l.

890. £ 837 : 15 South Sea Stock,
at £ 113½ *per Cent.*

£	s.	d.	
837	15		
10	—	—	83 : 15 : 6
2	—	—	16 : 15 : 1
1	5	—	10 : 9 : 4½
10	—	—	4 : 3 : 9½
2	6	—	1 : — : 11½

£ 953 : 19 : 8 *Ans.*

* Of 10l. + Of 2l.

891. £ 747 : 10 Bank Annuities,
at £ 96 *per Cent.*

£	s.	
747	10	
20	—	149 : 10
4	—	29 : 18

£	s.
747	10
29	18

Subtract.
£ 717 : 12 *Answer.*

O R,

12 × 8 = 96

£	s.
747	10
	12

8970 : —
8

£	s.	d.
717	60	—
	20	—
	—	—
112	00	—

Answer £ 717 : 12.

892. £ 821

892. £ 821 : 16 Bank Annuities, at £ 93½ ¢ Cent.

$$\begin{array}{r}
 \text{£} \quad \text{s.} \\
 821 : 16 \\
 \hline
 \begin{array}{l}
 5 \text{ --- } \frac{1}{10} \\
 13 \text{ --- } \frac{1}{4} \\
 8 \text{ --- } \frac{1}{10}
 \end{array}
 \left| \begin{array}{l}
 41 : 1 : 9\frac{1}{2} \\
 10 : 5 : 5\frac{1}{2} \\
 1 : \text{---} : 0\frac{1}{2}
 \end{array} \right\} \text{Add.} \\
 \hline
 6\frac{1}{2} \quad \text{£ } 52 : 7 : 9\frac{1}{2}
 \end{array}$$

$$\begin{array}{r}
 100 \\
 93\frac{1}{2} \\
 \hline
 6\frac{1}{2}
 \end{array}
 \quad
 \begin{array}{r}
 \text{£} \quad \text{s.} \quad \text{d.} \\
 821 : 16 : \text{---} \\
 52 : 7 : 9\frac{1}{2} \\
 \hline
 \text{£ } 769 : 8 : 2\frac{1}{2} \text{ Answer.}
 \end{array}
 \left. \vphantom{\begin{array}{r} 100 \\ 93\frac{1}{2} \\ 6\frac{1}{2} \end{array}} \right\} \text{Subtract.}$$

Examples for the Learner's Exercise.

Answer.

- What is the Purchase of £ 873 : 7, Bank Stock, } £ 1155 : — : 1
 at £ 132½ ¢ Cent. ? — — —
- What is the Purchase of £ 387 India Stock, at } 494 : 17 : 5½
 £ 127½ ¢ Cent. ? — — —
- At £ 113½ ¢ Cent. what is the Purchase of £ 781 } 887 : 8 : 2½
 South Sea Stock ? — — —
- What is the Purchase of £ 807 : 16, Bank An- } 759 : 6 : 7½
 nuities, at £ 94 ¢ Cent. ? — — —
- What is the Purchase of £ 1761 : 19, Bank An- } 1702 : 9 : 8
 nuities, at £ 96½ ¢ Cent. ? — — —



894.

£ 879 : 18, at 7s. 6d. $\frac{1}{4}$ Cent.

O R,

£	s.
879	: 18
20	
15	98
12	
11	76
4	
3	04

£	s.	d.
8	: 15	: 11½
		3

26	: 7	: 11½
8		

£ 3 : 5 : 11½ Answer,

7s. 6d. = $\frac{1}{4}$ of a £.

£	s.	d.
8	: 15	: 11½

s.	d.
5	— — — ½
2	: 6 — — ½

2	: 3	: 11½
1	: 1	: 11½

£ 3 : 5 : 11½ Answer.

895.

£ 175 : 18, at 4s. 9d. $\frac{1}{4}$ Cent.

£	s.
175	: 18
20	
15	18
12	
2	16

s.	d.
4	: — — — ¾
6	— — — ¾
3	— — — ¾

£	s.	d.
1	: 15	: 2

£ — : 8 : 4 Answer.

*Examples for the Learner's Exercise.**Answer.*What is the Brokage of £ 876 : 17 : 3, at 6s. $\frac{1}{4}$ Cent. ? £ 2 : 12 : 7Find the Brokage of £ 713, at 7s. 6d. $\frac{1}{4}$ Cent. ? — 2 : 13 : 5½What is the Brokage of £ 187 : 13, at 4s. 9d. $\frac{1}{4}$ Cent. ? — : 8 : 10½

P R A C T I C E.

XIII. SIMPLE INTEREST for YEARS.

WHEN the Interest of any Sum is required for several Years.

R U L E.

I. Find the Yearly Interest.

II. Multiply the Yearly Interest by the Number of Years, the Product will be the Answer.

Examples.

198 Simple Interest for Years.

PRAC-

Examples.

896. £ 179 : 17 : 8, at £ 5 $\frac{1}{8}$ $\frac{1}{2}$ Cent. $\frac{1}{2}$ Annum, for 5 Years.

$$\begin{array}{r} \text{£} \quad \text{s.} \quad \text{d.} \\ 179 : 17 : 8 \\ \hline \text{£} \quad \text{s.} \\ 5 : - - \frac{2}{20} \quad \left\{ \begin{array}{l} 8 : 19 : 10 \frac{1}{2} \\ - : 8 : 11 \frac{1}{2} \\ - : 4 : 5 \frac{1}{2} \end{array} \right\} \begin{array}{l} \text{not to be} \\ \text{added.} \end{array} \\ \hline 9 : 4 : 4 \frac{1}{2} \text{ Interest} \\ \quad \quad \quad 5 \text{ [for 1Y.} \end{array}$$

£ 46 : 1 : 9 $\frac{1}{4}$ Interest [for 5Y.

* Of 5s.

897. £ 807 : 13 : 8, at £ 3 $\frac{1}{4}$ $\frac{1}{2}$ Cent. $\frac{1}{2}$ Annum, for 7 Years.

$$\begin{array}{r} \text{£} \quad \text{s.} \quad \text{d.} \\ 807 : 13 : 8 \\ \hline 2423 : 1 : - \\ 302 : 17 : 7 \frac{1}{2} \end{array} \left. \vphantom{\begin{array}{r} 2423 : 1 : - \\ 302 : 17 : 7 \frac{1}{2} \end{array}} \right\} \text{Add.}$$

£ 27 25 : 18 : 7 $\frac{1}{2}$

4 5 18

12

23

£ s. d.

27 : 5 : 2 Interest for 1 Year.

£ 190 : 16 : 2 Interest for 7 Years.

* Of 3s.

898. £ 179 : 13 : 7, at £ 5 $\frac{1}{8}$ $\frac{1}{2}$ Cent. $\frac{1}{2}$ Annum, for 8 Years.

$$\begin{array}{r} \text{£} \quad \text{s.} \quad \text{d.} \\ 179 : 13 : 7 \\ \hline \text{£} \\ 5 : - - \frac{2}{20} \quad \left\{ \begin{array}{l} 8 : 19 : 8 \\ 1 : 2 : 5 \frac{1}{2} \\ 10 : 2 : 1 \frac{1}{2} \\ \quad \quad \quad 8 \end{array} \right. \end{array}$$

£ 80 : 17 : — Answer.

* Of 5l.

899. £ 900 : 7 : 6, at £ 3 $\frac{1}{8}$ $\frac{1}{2}$ Cent. $\frac{1}{2}$ Annum, for 13 Years.

$$\begin{array}{r} \text{£} \quad \text{s.} \quad \text{d.} \\ 900 : 7 : 6 \\ \hline 2701 : 2 : 6 \\ 450 : 3 : 9 \\ 112 : 10 : 11 \frac{1}{2} \end{array}$$

£ 32 63 : 17 : 2 $\frac{1}{2}$

s. 12 77

12

d. 9 26

4

far. 1 05

£ 32 : 12 : 9 $\frac{1}{2}$

12

391 : 13 : 3 } Add.

32 : 12 : 9 $\frac{1}{2}$

£ 424 : 6 : — $\frac{1}{2}$ Answer.

Examples

Examples for the Learner's Exercise.

Answer.

- What is the Interest of £ 371 : 16 : 2 for 7 Years, } £ 137 : 7 : 7
 at £ 5 $\frac{1}{2}$ Cent. $\frac{1}{2}$ Annum? —
- At £ 3 $\frac{1}{2}$ Cent. $\frac{1}{2}$ Annum, what is the Interest } 53 : 12 : 8 $\frac{1}{2}$
 of £ 317 : 17 : 2 for 5 Years? —
- At £ 5 $\frac{1}{2}$ Cent. $\frac{1}{2}$ Annum, what is the Interest of } 894 : 9 : 3 $\frac{1}{2}$
 £ 875 : 17 : 4 for 19 Years? —
- At £ 5 $\frac{1}{2}$ Cent. $\frac{1}{2}$ Annum, what is the Interest } 321 : — : 10
 of £ 713 : 8 : 7 for 8 Years? —
- At £ 3 $\frac{1}{2}$ Cent. $\frac{1}{2}$ Annum, what is the Interest } 1029 : 17 : 11
 of £ 817 : 16 : 7 for 37 Years? —
- At £ 2 $\frac{7}{8}$ Cent. $\frac{1}{2}$ Annum, what is the Amount } 1024 : 8 : 10 $\frac{1}{2}$
 of £ 813 : 17 : 3 for 9 Years? —

WHEN the Interest of any Sum is required for Years and Months.

R U L E.

Find the Yearly Interest, multiply it by the Number of Years as before, then for the Months, divide the Yearly Interest by the Part or Parts, that the given Months are of a Year, add the Interest for the given Months with the rest of the Work, their Sum will be the Answer.

Examples.

900. What is the Interest of £ 67 : 10 for 7 Months, at £ 5 $\frac{1}{2}$ Cent. $\frac{1}{2}$ Annum?

	£	s.	d.	
	67	10	—	
£ 5 $\frac{1}{2}$ Cent. $\frac{1}{2}$ Annum	3	7	6	for a Year.
Months 6 $\frac{1}{2}$	1	13	9	
1 $\frac{1}{8}$	—	5	7 $\frac{1}{2}$	
7	£ 1	19	4 $\frac{1}{2}$	Answer.

In this Example Months only are given, therefore find the Yearly Interest, take Parts, and divide as directed in the above Rule.

901. What

901. What is the Interest of £ 79 : 16 for $5\frac{1}{2}$ Years, at £ 4 $\frac{1}{2}$ Cent. $\frac{1}{2}$ Annum?

$$\begin{array}{r}
 \text{£} \quad \text{s.} \\
 79 : 16 \\
 \hline
 \text{£} \quad \text{s.} \\
 5 \quad \frac{1}{2} \quad \frac{1}{2} \quad \left| \begin{array}{l} 3 : 19 : 9\frac{1}{2} \\ 1 : 15 : 11\frac{1}{2} \end{array} \right\} \text{Subtract.} \\
 \hline
 4 \quad \left| \begin{array}{l} 3 : 3 : 10 \\ 3 : 3 : 11\frac{1}{2} \\ 1 : 1 : 11\frac{1}{2} \end{array} \right.
 \end{array}$$

3 : 9 : $9\frac{1}{2}$ for 1 Year.

• Of 17.

$$\begin{array}{r}
 \text{Mon.} \quad \left| \begin{array}{l} 17 : 8 : 11\frac{1}{2} \text{ for } 5 : - \\ 6 : 1 : 14 : 10\frac{1}{2} \text{ for } - : 6 \end{array} \right\} \text{Add.} \\
 \hline
 \text{£} \quad 19 : 3 : 10\frac{1}{2} \text{ for } 5 : 6
 \end{array}$$

902. What is the Amount of £ 317 : 16 for 5 Years 9 Months, at £ 3 $\frac{1}{2}$ Cent. $\frac{1}{2}$ Annum?

$$\begin{array}{r}
 \text{£} \quad \text{s.} \quad \text{d.} \\
 317 : 16 : - \\
 \hline
 5 \quad \frac{1}{2} \quad \frac{1}{2} \quad \left| \begin{array}{l} 15 : 17 : 9\frac{1}{2} \\ 7 : 18 : 10\frac{1}{2} \\ 3 : 3 : 6\frac{1}{2} \end{array} \right\} \text{Add.} \\
 \hline
 11 : 2 : 5\frac{1}{2} \text{ for 1 Year.}
 \end{array}$$

Of 51.

$$\begin{array}{r}
 \text{Mon.} \quad \left| \begin{array}{l} 55 : 12 : 2\frac{1}{2} \text{ for } 5 : - \\ 5 : 11 : 2\frac{1}{2} \text{ for } - : 6 \\ 2 : 15 : 7\frac{1}{2} \text{ for } - : 3 \\ 317 : 16 : - \text{ the Principal} \end{array} \right\} \text{Add.} \\
 \hline
 \text{£} \quad 381 : 15 : - \text{ Amount.}
 \end{array}$$

903. What

903. What is the Interest of £ 707 : 12 : 6 for 11 Years and 1 Month,
at £ 1 $\frac{1}{4}$ Cent. $\text{\textcircled{P}}$ Annum?

$$\begin{array}{r}
 \text{£} \quad \text{s.} \quad \text{d.} \\
 707 : 12 : 6 \\
 \hline
 10 - \frac{1}{10} \quad 70 : 15 : 3 \\
 \hline
 1\frac{1}{4} - \frac{1}{8} \quad 8 : 16 : 10\frac{1}{2} \text{ for 1 Year.} \\
 \hline
 \quad \quad \quad 11 \\
 \hline
 \text{Yrs. Mon.} \\
 \text{Mon.} \quad 97 : 5 : 10\frac{1}{2} \text{ for 11 : —} \\
 1 - \frac{1}{12} \quad \quad : 14 : 8\frac{1}{4} \text{ for — : 1} \quad \left. \vphantom{\begin{array}{l} 97 : 5 : 10\frac{1}{2} \\ : 14 : 8\frac{1}{4} \end{array}} \right\} \text{Add.} \\
 \hline
 \text{£ } 98 : — : 7 \text{ for 11 : 1}
 \end{array}$$

904. What is the Interest of £ 525 for 3 Years 2 Months, at £ 2 $\frac{1}{2}$ Cent. $\text{\textcircled{P}}$ Annum?

$$\begin{array}{r}
 \text{£} \quad \text{s.} \quad \text{d.} \\
 525 : — : — \\
 \hline
 5 - \frac{1}{10} \quad 26 : 5 : — \\
 \hline
 2\frac{1}{2} - \frac{1}{8} \quad 13 : 2 : 6 \text{ for 1 Year.} \\
 \hline
 \quad \quad \quad 3 \\
 \hline
 \text{Yrs. Mon.} \\
 \text{Mon.} \quad 39 : 7 : 6 \text{ for 3 : —} \\
 2 - \frac{1}{8} \quad \quad : 2 : 3 : 9 \text{ for — : 2} \quad \left. \vphantom{\begin{array}{l} 39 : 7 : 6 \\ : 2 : 3 : 9 \end{array}} \right\} \text{Add.} \\
 \hline
 \text{£ } 41 : 11 : 3 \text{ for 3 : 2}
 \end{array}$$

905. What is the Interest of £ 759 : 16 : 7 for 12 Years 4 Months,
at £ 5 $\frac{1}{8}$ Cent. $\text{\textcircled{P}}$ Annum?

$$\begin{array}{r}
 \text{£} \quad \text{s.} \quad \text{d.} \\
 759 : 16 : 7 \\
 \hline
 5 - \frac{1}{10} \quad 37 : 10 : 9\frac{1}{2} \\
 \hline
 1 - \frac{1}{12} \quad 7 : 11 : 11\frac{1}{2} \text{ this Line is not to be added.} \\
 \hline
 \frac{1}{8} - \frac{1}{8} \quad \quad : 18 : 11\frac{1}{2} \\
 \hline
 \text{£ } 38 : 18 : 9\frac{1}{2} \text{ for 1 Year.} \\
 \hline
 \quad \quad \quad 12 \\
 \hline
 \text{Yrs. Mon.} \\
 \text{Mon.} \quad 467 : 5 : 6 \text{ for 12 : —} \\
 4 - \frac{1}{12} \quad \quad : 12 : 49 : 7 \text{ for — : 4} \quad \left. \vphantom{\begin{array}{l} 467 : 5 : 6 \\ : 12 : 49 : 7 \end{array}} \right\} \text{Add.} \\
 \hline
 \text{£ } 480 : 5 : 1 \text{ for 12 : 4}
 \end{array}$$

103 Simple Interest for Years and Months.

PRAC.

906. At £ 5 $\frac{1}{4}$ Cent. $\frac{1}{4}$ Annam, what is the Interest of £ 871 : 15 : 7 for 6 Years 5 Months ?

$$\begin{array}{r}
 \text{£} \quad \text{s.} \quad \text{d.} \\
 871 : 15 : 7 \\
 \hline
 5 \quad : 11 : 9\frac{1}{2} \\
 \quad : 3 : 7 \\
 \quad : 1 : 9\frac{1}{2} \\
 \hline
 \text{Add.} \\
 \hline
 \text{£} \quad \text{s.} \quad \text{d.} \\
 517 : 17 : 1\frac{1}{2} \text{ for 1 Year.} \\
 \hline
 \text{£} \quad \text{s.} \quad \text{d.} \\
 300 : 13 : 4 \text{ for 6 : 5}
 \end{array}$$

$$\begin{array}{r}
 \text{Mon.} \quad \text{Yrs. Mon.} \\
 281 : 2 : 10\frac{1}{2} \text{ for } 6 : - \\
 4 \quad : 15 : 12 : 4\frac{1}{2} \text{ for } - : 4 \\
 1 \quad : 3 : 18 : 1 \text{ for } - : 1 \\
 \hline
 \text{Add.} \\
 \hline
 \text{£} \quad \text{s.} \quad \text{d.} \\
 300 : 13 : 4 \text{ for } 6 : 5
 \end{array}$$

907. At £ 3 $\frac{1}{4}$ Cent. $\frac{1}{4}$ Annam, what is the Interest of £ 571 : 3 : 6 for 30 Years 7 Months ?

$$\begin{array}{r}
 \text{£} \quad \text{s.} \quad \text{d.} \\
 571 : 3 : 6 \\
 \hline
 3 \\
 \hline
 \text{£} \quad \text{s.} \quad \text{d.} \\
 1713 : 10 : 6 \\
 \hline
 20 \\
 \hline
 \text{s.} \quad 270 \\
 \hline
 12 \\
 \hline
 \text{d.} \quad 846 \\
 \hline
 4 \\
 \hline
 \text{far.} \quad 184
 \end{array}$$

$$\begin{array}{r}
 \text{£} \quad \text{s.} \quad \text{d.} \\
 17 : 2 : 8\frac{1}{2} \text{ for 1 Year.} \\
 \hline
 5
 \end{array}$$

$$\begin{array}{r}
 85 : 13 : 5\frac{1}{2} \\
 \hline
 6
 \end{array}
 \quad 5 \times 6 = 30$$

$$\begin{array}{r}
 \text{Mon.} \quad \text{Yrs. Mon.} \\
 514 : - : 7\frac{1}{2} \text{ for } 30 : - \\
 6 \quad : 8 : 11 : 4 \text{ for } - : 6 \\
 1 \quad : 1 : 8 : 6\frac{1}{2} \text{ for } - : 1 \\
 \hline
 \text{Add.} \\
 \hline
 \text{£} \quad \text{s.} \quad \text{d.} \\
 524 : - : 6 \text{ for } 30 : 7
 \end{array}$$

908. What

908. What is the Interest of £ 769 : 17 : 6 for 14 Years 8 Months, at £ 2½ Cent. Ann^{um}?

£	s.	d.	
769	17	6	
5 -- 1/10	38	9	10½
2½ -- 1/10	19	4	11½
1/4 -- 1/10	1	18	5½
2½	21	3	5 for 1 Year
			7
7 × 2 = 14			
	148	3	11
			2

Mon.	296	7	10	for 14 : —	} Add.
6 -- 1/10	10	11	8½	for — : 6	
2 -- 1/10	3	10	6½	for — : 2	
	£ 310	10	12½	for 14 : 8	

909. Find the Interest of £ 537 : 16 : 7 for 1 Year 10 Months, at £ 2½ Cent. Ann^{um}?

£	s.	d.	
537	16	7	
10 -- 1/10	53	15	7½
2½ -- 1/10	13	8	10½
1/8 -- 1/10	—	3	5½
	£ 14	2	4

£	s.	d.	Yr. Mon.
14	2	4	for 1 : —
6 -- 1/10	7	1	2 for — : 6
4 -- 1/10	4	14	1½ for — : 4
	£ 25	17	7½ for 1 : 10

910. At £ 4½ Cent. Ann^{um}, what is the Amount of £ 476 : 15 : 8 for 13 Years 11 Months?

£	s.	d.	
476	15	8	
5 -- 1/10	23	16	—
1 -- 1/10	4	15	4½
	19	1	5
4 -- 1/10	1	3	10
1/8 -- 1/10	—	11	11
	£ 20	17	2

£	s.	d.	Yr. Mon.
20	17	2	for 1 Year.
	250	6	— for 12 Years.
M.	20	17	2 for 1 Year.
6 -- 1/10	10	8	7
4 -- 1/10	6	19	—
1 -- 1/10	1	14	9
	476	15	8 Principal.
	£ 767	1	2½ Answer.

204 *Simple Interest for Years and Months.*

PR

911. Lent at *Christmas* 1753 the Sum of £ 5000 at £ 4½ $\frac{1}{10}$ Cent. after which Time I lent several Sums at the same Rate, and drew upon the Borrower as Business required, viz on *Lady day* 1754 I drew for 185 Guineas, on *Midsummer day* 1754 I lent 500 Moidores and drew for 700 Pounds, on *Michaelmas day* 1754 I lent £ 569 : 17. I demand what Cash the Borrower owes me on *Michaelmas day* 1754?

£ 5000 Principal at £ 4½ $\frac{1}{10}$ Cent.

$$\begin{array}{r} \text{£} \\ 5 \text{ --- } \frac{1}{10} \\ \frac{1}{2} \text{ --- } \frac{1}{10} \end{array} \left\{ \begin{array}{l} 250 \\ 25 \end{array} \right\} \text{Subtract.}$$

225 Interest for 1 Year.
4

56 : 5 Interest due from *Christmas* 1753, to *Lady day* 1754 } Add.
5000 Principal.

5056 : 5 Amount at *Lady day* } Subtract.
194 : 5 drawn.

4862 : — new Principal at £ 4½ $\frac{1}{10}$ Cent.

$$\begin{array}{r} \text{£} \\ 5 \text{ --- } \frac{1}{10} \\ \frac{1}{2} \text{ --- } \frac{1}{10} \end{array} \left\{ \begin{array}{l} 243 : 3 \\ 24 : 6 : 2\frac{1}{2} \end{array} \right\} \text{Subtract.}$$

218 : 15 : 9½ Interest for 1 Year.
4

54 : 5 : 11½ Interest due from *Lady day* 1754, to *Mid-* } Add.
4862 : — : — last Principal. [Summer-day 1754]

4916 : 13 : 11½ Amount at *Midsummer* 1754.
2 : — : — drawn.

4891 : 13 : 11½ new Principal at £ 4½ $\frac{1}{10}$ Cent.

$$\begin{array}{r} \text{£} \\ 5 \text{ --- } \frac{1}{10} \\ \frac{1}{2} \text{ --- } \frac{1}{10} \end{array} \left\{ \begin{array}{l} 244 : 11 : 8\frac{1}{2} \\ 24 : 9 : 2 \end{array} \right\} \text{Subtract.}$$

220 : 2 : 6½ Interest for 1 Year.
4

55 : — : 7½ Interest due from *Midsummer day* 1754, to } Add.
4891 : 13 : 11½ last Principal. [Michaelmas 1754]
509 : 17 : — Lent.

£ 5516 : 11 : 6½ Answer.

$$\begin{array}{r} 185 \text{ Guineas.} \\ 1 \text{ --- } \frac{1}{10} \\ \frac{1}{2} \text{ --- } \frac{1}{10} \end{array} \left\{ \begin{array}{l} 9 : 5 \\ 6 \text{ --- } \frac{1}{10} \\ 1 \text{ --- } \frac{1}{10} \end{array} \right\} \begin{array}{l} 500 \text{ Moidores.} \\ 150 \\ 25 \end{array}$$

£ 194 : 5 drawn.

£ 675 lent.

£
Drew for 700
Lent 675

Drew for 25

Exam

Examples for the Learner's Exercise.

Answer.

At £ 5 $\frac{1}{4}$ Cent. $\frac{1}{4}$ Annum, what is the Interest of £ 871 for 11 Months? — — —	} £ 39 : 18 : 5
What is the Interest of £ 987 : 16 for 7 Years 7 Months, at £ 4 $\frac{1}{2}$ Cent. $\frac{1}{4}$ Annum? — —	} 333 : 1 : 1 $\frac{1}{2}$
What is the Amount of £ 837 : 17 : 9 for 19 Years 4 Months, at £ 3 $\frac{1}{4}$ Cent. $\frac{1}{4}$ Annum? — —	} 1323 : 17 : 2
What is the Interest of £ 947 : 12 : 6 for 5 Years 9 Months, at £ 3 $\frac{1}{2}$ Cent. $\frac{1}{4}$ Annum? — —	} 190 : 14 : 2
At £ 1 $\frac{1}{2}$ Cent. $\frac{1}{4}$ Annum, what is the Interest of £ 900 for 3 Years 1 Month? — — —	} 34 : 13 : 9
At £ 2 $\frac{1}{2}$ Cent. $\frac{1}{4}$ Annum, what is the Interest of £ 913 : 17 for 5 Years 2 Months? — —	} 118 : — : 8 $\frac{1}{2}$
At £ 5 $\frac{1}{8}$ Cent. $\frac{1}{4}$ Annum, what is the Interest of £ 875 for 11 Years 4 Months? — — —	} 508 : 4 : 7 $\frac{1}{2}$
At £ 5 $\frac{1}{4}$ Cent. $\frac{1}{4}$ Annum, what is the Interest of £ 417 : 15 for 5 Years 5 Months? — — —	} 121 : 12 : 5
At £ 3 Cent. $\frac{1}{4}$ Annum, what is the Interest of £ 871 : 1 : 6 for 31 Years 7 Months? — — —	} 825 : 6 : 2 $\frac{1}{2}$
What is the Interest of £ 571 for 14 Years 8 Months, at £ 2 $\frac{1}{4}$ Cent. $\frac{1}{4}$ Annum? — — —	} 198 : 17 : 8 $\frac{1}{2}$
What is the Interest of £ 921 for 1 Year 10 Months, at £ 2 $\frac{1}{8}$ Cent. $\frac{1}{4}$ Annum? — — —	} 44 : 6 : 5 $\frac{1}{2}$
Find the Amount of £ 874 : 16 : 8 for 13 Years 11 Months, at £ 4 $\frac{1}{8}$ Cent. $\frac{1}{4}$ Annum? — —	} 1407 : 9 : 6 $\frac{1}{2}$
Borrowed on Michaelmas-day 1753, the Sum of £ 700 at £ 3 $\frac{1}{4}$ Cent. $\frac{1}{4}$ Annum, on Christ- mas day 1753 paid 79 Guineas, on Lady-day 1754 borrowed £ 179 at the above Rate. I demand what I owe at Christmas 1754? — —	} 826 : 9 : 3



P R A C T I C E.

XIV. COMPOUND INTEREST.

Examples.

912. What is the Compound Interest of £500 for 4 Years, at £5
 49 Cent. 49 Annum?

£	500	Principal for the first Year.	} Add.
5 --- $\frac{1}{10}$	25	Interest for the first Year.	
5 --- $\frac{1}{10}$	525	Amount for the first Year, and Principal for the 2d.	} Add.
	26 : 5	Interest for the second Year. [cond Year.]	
5 --- $\frac{1}{10}$	551 : 5	Amount for the second Year, and Principal for the 3d.	} Add.
	27 : 11 : 3	Interest for the third Year. [the third Year.]	
5 --- $\frac{1}{10}$	578 : 16 : 3	Amount for the third Year, and Principal for the 4th.	} Add.
	28 : 18 : 9 $\frac{1}{2}$	Interest for the fourth Year. [for the 4th Y.]	
	607 : 15 : — $\frac{1}{2}$	Amount for the fourth Year.	} Subtract.
	500 : — : —	Principal.	

Ans. £ 107 : 15 : — $\frac{1}{2}$ Interest for four Years.

Since the Amount is the Sum of the Principal and Interest, the difference between the Amount and the Principal will be the Interest.

913. What

913. What is the Amount of £ 760 : 10 for $4\frac{1}{2}$ Years, at £ 4 $\frac{1}{2}$ Cent. $\frac{1}{2}$ Annum?

£	760 : 10	Principal.	
20 --- $\frac{1}{2}$	152 : 2		} Add.
4 --- $\frac{1}{2}$	30 : 8 : $4\frac{1}{2}$	Interest for the first Year.	
	790 : 18 : $4\frac{1}{2}$	Amount for the first Year, and Principal for	} Add.
20 --- $\frac{1}{2}$	158 : 3 : 8	[the second Year.	
4 --- $\frac{1}{2}$	31 : 12 : $8\frac{1}{2}$	Interest for the second Year.	
	822 : 11 : $1\frac{1}{2}$	Amount for the second Year, and Principal	} Add.
20 --- $\frac{1}{2}$	164 : 10 : $2\frac{1}{2}$	[for the third Year.	
4 --- $\frac{1}{2}$	32 : 18 : $—\frac{1}{2}$	Interest for the third Year.	
	855 : 9 : 2	Amount for the third Year, and Principal	} Add.
20 --- $\frac{1}{2}$	171 : 1 : 10	[for the fourth Year.	
4 --- $\frac{1}{2}$	34 : 4 : $4\frac{1}{2}$	Interest for the fourth Year.	
	889 : 13 : $6\frac{1}{2}$	Amount for the fourth Year.	
20 --- $\frac{1}{2}$	177 : 18 : $8\frac{1}{2}$		
4 --- $\frac{1}{2}$	35 : 11 : $8\frac{1}{2}$	Interest for the fifth Year.	
	106 : 15 : $2\frac{1}{2}$		
	4		
	26 : 13 : $9\frac{1}{2}$	Interest for $\frac{1}{2}$ of a Year.	} Add.
	889 : 13 : $6\frac{1}{2}$	Amount for the fourth Year.	
Answer.	916 : 7 : $3\frac{1}{2}$	Amount for $4\frac{1}{2}$ Years.	

Examples for the Learner's Exercise.

What is the Amount of £ 957 for 5 Years, at £ 6 $\frac{1}{2}$ Cent. $\frac{1}{2}$ Annum, Compound Interest? — } Answer.
 What is the Compound Interest of £ 863 : 10 for $4\frac{1}{2}$ Years, at £ 5 $\frac{1}{2}$ Cent. $\frac{1}{2}$ Annum? — } 212 : 6 : $6\frac{1}{2}$
 What is the Compound Interest of £ 550 for $3\frac{1}{2}$ Years, at £ 4 $\frac{1}{2}$ Cent. $\frac{1}{2}$ Annum? — } 81 : — : 11

PRACTICE.

XV. *LOSS and GAIN.*

I. **T**O find at what Price to sell Goods to gain or lose so much d^{p} Cent.

R U L E.

If the Gain or Loss be an aliquot Part of £ 100, divide by *that Part*.

But if it is not an aliquot Part of £ 100, take Parts for it, at twice or more times, as you can most conveniently, and divide by those Divisors, add the Quotients together, the Sum will be the Gain or Loss d^{p} Cent.

If it be required to Gain, *add* the Gain with the Prime Cost.

But if it be required to Lose, *subtract*.

Examples.

914. At what Price must I sell 1 C. of Sugar, which cost £ 2 : 6 : 8, to gain £ 10 d^{p} Cent.?

£	s.	d.	
2	6	8	prime Cost
10	4	8	Gain.
2			11
£			2 : 11 : 4 Answer.

916. If 1 Yard of Cloth cost 9s. 4d. at what Price must I sell it to lose £ 15 d^{p} Cent.?

s.	d.	
9	4	prime Cost.
10	—	11
5	—	5½
15		1 : 4½
s.		7 : 11½ Answer.

915. At what Price must I sell 1 C. of Sugar, which cost £ 2 : 6 : 8, to lose £ 10 d^{p} Cent.?

£	s.	d.	
2	6	8	prime Cost
10	4	8	Loss.
2			2
£			2 : 2 : 0 Answer.

917. If 1 Tun of Wine cost 45 l. 19s. 10d. at what Price must I sell it to gain £ 26½ d^{p} Cent.?

£	s.	d.	
45	19	10	
20	9	3	11½
5	2	5	11½
1	—	9	2½
10	—	4	7
£			58 : 3 : 6½ Answer.

Example

Examples for the Learner's Exercise.

Answer.

- At what Price must I sell 1 C. of Sugar, which cost } £ 3 : 7 : 2½
 £ 2 : 16, to gain £ 20 $\frac{1}{4}$ Cent. ? — }
 At what Price must I sell 1 C. of Sugar, which cost } 3 : 2 : —
 £ 3 : 17 : 6, to lose £ 20 $\frac{1}{4}$ Cent. ? — }
 If 1 Yard of Cloth cost 15s. 7d. at what Price must } — : 13 : 3½
 I sell it to lose £ 15 $\frac{1}{4}$ Cent. ? — }
 Bought Goods for £ 57 : 18 : 6, at what Price must } 72 : — : —
 they be sold, to gain £ 24 : 6 $\frac{1}{4}$ Cent. ? — }

II. HAVING gained or lost so much $\frac{1}{4}$ Shilling, to find the Gain or Loss $\frac{1}{4}$ Cent.

R U L E.

If what is gained or lost be an aliquot Part of a Shilling, divide £ 100 by that Part, the Quotient will be the Answer.

But if the Gain or Loss is not an aliquot Part of a Shilling, take Parts for it, at twice or more times as before, add those Quotients together, the Sum will be the Answer.

Examples.

918. If I gain 2d. in a Shilling, how much is my gain $\frac{1}{4}$ Cent. ?

£ 100

$$\begin{array}{r} d. \\ 2 \text{ --- } \frac{1}{2} \end{array} \left| \begin{array}{l} 16 : 13 : 4 \end{array} \right. \text{ Answer.}$$

919. Sold Goods for £ 50 : 12 : 6, and gained 3½d. in a Shilling, how much is the Gain $\frac{1}{4}$ Cent. ?

£ 100

$$\begin{array}{r} d. \\ 3 \text{ --- } \frac{1}{2} \\ \frac{1}{2} \text{ --- } \frac{1}{2} \end{array} \left| \begin{array}{l} 25 : - : - \\ 4 : 3 : 4 \end{array} \right. \text{ Add.}$$

£ 29 : 3 : 4 Answer.

920. If I lose 4½d. in a Shilling, what is the Loss $\frac{1}{4}$ Cent. ?

£ 100

$$\begin{array}{r} d. \\ 4 \text{ --- } \frac{1}{2} \\ \frac{1}{2} \text{ --- } \frac{1}{2} \end{array} \left| \begin{array}{l} 33 : 6 : 8 \\ 4 : 3 : 4 \end{array} \right. \text{ Add.}$$

£ 37 : 10 : — Answer.

O R,

4½ = ½ of a Shilling.

£

100

3

300

8

£ 37 : 10 Answer.

921. If I lose 5½d. in a Shilling, how much will be my Loss in £ 100 ?

£

100

d.

$$\begin{array}{r} 4 \text{ --- } \frac{1}{2} \\ 1 \frac{1}{2} \text{ --- } \frac{1}{2} \\ \frac{1}{2} \text{ --- } \frac{1}{2} \end{array} \left| \begin{array}{l} 33 : 6 : 8 \\ 12 : 10 : - \\ 2 : 1 : 8 \end{array} \right.$$

£ 47 : 18 : 4 Answer.

Examples for the Learner's Exercise.

Answer:

If I gain $1\frac{1}{2}d.$ in a Shilling, how much will my Gain be in £100? $\frac{12}{100} : 100 : \frac{12}{100}$

Sold Goods for £871, and gained $3\frac{1}{2}d.$ in the Shilling, how much is the Gain $\frac{39}{100}$ Cent? $31 : 5 : \frac{39}{100}$

If I lose $4\frac{1}{2}d.$ in a Shilling, how much will be my Loss in £100? $39 : 11 : 8$

III. HAVING gained or lost so much $\frac{\text{¢}}{\text{L}}$, to find the Gain or Loss $\frac{\text{¢}}{\text{Cent}}$.

R U L E.

If the Gain or Loss be an aliquot Part of a £, divide £ 100 by *that Part*. But if not, proceed as before directed.

Examples.

922. If by the Sale of 50 Chests of Lemons I have gained 4s. $\frac{3}{4}$ £, what is the Gain $\frac{3}{4}$ Cent?

$\pounds 100$
 $4 \div \frac{1}{3} = 20$ Answer.

923. Suppose by the Sale of Goods I have lost 5s. 8d. $\frac{1}{2}$ p. Cent., how much is the Loss $\frac{1}{2}$ p. Cent.?

s $d.$ £ 100
 $5 : \frac{1}{8} :: \frac{1}{4} : 25$
 $8 : \frac{1}{16} :: 3 : 6$

924. If I gain 7s. 6d. $\frac{1}{2}$ £, how much is that $\frac{1}{2}$ Cent.?

$\begin{array}{r} \text{s. d.} \\ 5 : \text{---} \\ 2 : 6 : \text{---} \end{array} \begin{array}{l} \text{£ } 100 \\ \hline 25 \\ 12 : 10 \end{array}$
 $\text{£ } 37 : 10$

O R,

7s. 6d. is $\frac{3}{4}$ of £.

$$\begin{array}{r} \text{£} \\ 100 \\ \underline{3} \\ 300 \\ \underline{8} \\ \text{£ } 37 : 10 \text{ Answer.} \end{array}$$

925. If by the Sale of 1 Hog-head of Tobacco I have gained 3s. 9d. $\text{of } \text{£}$, how much is that $\text{of } \text{Cent.}$?

$\begin{array}{r} \text{£ } 100 \\ \text{s. d.} \\ 4 : \text{---} \frac{1}{2} \\ \quad 3 \text{---} \frac{1}{16} \\ \hline 3 : 9 \end{array} \quad \left| \begin{array}{r} 20 \\ 1 : 5 \end{array} \right. \} \text{Subtract.}$
 $\text{£ } 18 : 15 \text{ Answer.}$

Examples for the Learner's Exercise.

Answer.

If by the Sale of Goods I have gained 3s. 4d. $\frac{4}{100}$ £, } £ 16 : 13 4
 what is the Gain $\frac{4}{100}$ Cent. ? ————
 Suppose by the Sale of Paper I have lost 5s. 11d. } 29 : 11 8
 $\frac{11}{100}$ £, what is the Loss $\frac{11}{100}$ Cent. ? ————
 What is the Gain $\frac{11}{100}$ Cent. if I gain 6s. $\frac{6}{100}$ £ ? — 30 : — —
 If by the Sale of Goods I have gained 5s. 9d. $\frac{9}{100}$ } 28 : 15 —
 £, how much is that $\frac{9}{100}$ Cent. ? ————

P R A C T I C E.

XVI. GROSS, TARE, TRETT, and CLOFF.

GROSS Weight is the Weight of the Goods together with the Hogthead, Bale, or whatever else contains the Goods.

Tare is an Allowance to the Buyer for the Weight of the Hogthead, Bale, &c. into which the Goods are put; and is either *at so much for the Whole*, *at so much per Hogthead, Bale, &c.* or *at so much per C.*

Trett is an Allowance of 4 lb. for every 104 lb. or 1 lb. for every 26 lb.

Suttle is the Remainder when Part of the Allowances are deducted.

Cloff is an Allowance of 2 lb. for every 3 C.

Neat is the Weight of the Goods after all Allowances are deducted.

I. WHEN the Tare is at so much in the Whole.

R U L E.

Subtract the given Tare from the Gross, the Difference or Remainder will be the Neat Weight.

Examples.

926. Gross 379 C. 1 Qr. 17 lb the
[Weight of the Hogheads, or]
Tare 13 C. 2 Qrs. 19 lb. what
is the Neat Weight, or Weight
of the Commodity only?

C.	Qrs.	lb.	
379	: 1	: 17	Gross.
13	: 2	: 19	Tare.
			} Sub.

Weight 365 : 2 : 26 Neat.

Observe, If the Neat Weight is required in lb. reduce the C. neat into lb. as in Example 772.

C.	Qrs.	lb.
365	: 2	: 26
365		
365		
36582		
<hr/>		
40962	lb.	Neat.

927. How many C. neat are there in 5 Butts of Oil, each weighing as follows, viz.

	C.	Qrs.	lb.
Gross	10	: —	: 10
	11	: 2	: 18
	10	: 1	: —
	11	: —	: 12
	12	: 3	: 17

Total Gross 56 : — : 1
Tare 3 : 1 : 26

Neat 52 : 2 : 3

	C.	Qrs.	lb.
Tare	—	: 2	: 13
	—	: 2	: 26
	—	: 2	: 13
	—	: 2	: 21
	—	: 3	: 9

3 : 1 : 26 Tare of all.

212 *Gross and Tare.*

928. What is the Neat Weight of
2 Lots of Pepper, weighing as
follows,

	C.	Qrs.	lb.	lb.
Gross	27	: 1	: 18	Tare 150
	24	: 3	: 24	138
	52	: 1	: 14	288
	52			

52

5242

5866 lb. Gross.

288 lb. Tare.

5578 lb. Neat.

If the Neat Weight be required in
C. reduce 288 lb. Tare into C. viz.
2 C. 2 Qrs. 8 lb. Then,

PRAC.

C. Qrs. lb.

From 52 : 1 : 14 Gross.

Take 2 : 2 : 8 Tare.

Remains 49 : 3 : 6 Neat.

929. What is the Neat Weight of
3 Lots of Wormseed, weighing
as follows,

C.	Qrs.	lb.	C.	Qrs.	lb.
3	: 1	: 10	Tare allow'd	1	: — : 15
4	: 2	: —			
2	: 3	: 19			

10 : 3 : 1 Gross. } Subtract.
1 : — : 15 Tare.

9 : 2 : 14 Neat.

Examples for the Learner's Exercise.

Answer.

C. C. Qrs. lb. C. Qrs. lb.
Gross Weight 17, Tare 1 : — : 17, how many C. Neat? 15 : 3 : 11

What is the Neat Weight of 9 Hogsheads of Indigo, }
weighing 46 C. 1 Qr. 17 lb. Tare 1 C. 1 Qr. 19 lb. — } 44 : 3 : 26

What is the Neat Weight of 4 Bags of Cotton Wool,
weighing as follows: Also what is the Cost at $8\frac{1}{4}$ d.
per lb. Neat?

	C.	Qrs.	lb.	lb.
No 1	—	2	: — : 13	Tare 11
2	—	4	: 1 : 25	14
3	—	6	: — : 17	16
4	—	3	: 3 : 25	12

Answer { 1819 lb. Neat.
£ 62 : 10 : 6 $\frac{1}{4}$ the Cost.

II. WHEN the Tare is at so much per Hogshead, Bale, &c.

R U L E.

1. Find the Tare of all the Hogsheads, Bales, &c. Thus,
Multiply the Tare allowed for one Hogshead, Bale, &c. by the given
Number of Hogsheads, Bales, &c.

2. From the Gross Weight of all the Hogsheads, Bales, &c. subtract
the Tare of all the Hogsheads, Bales, &c. the Remainder will be the
Neat Weight.

O R,

O R,

1. Find the Neat Weight of 1 Hoghead, Bale, &c. Thus,
From the Gross Weight of 1 Hoghead, Bale, &c. subtract the Tare
of 1 Hoghead, Bale, &c. the Difference will be the Neat Weight of 1
Hoghead, Bale, &c.

2. Multiply the Neat Weight of 1 Hoghead, Bale, &c. by the given
Number of Hogheads, Bales, &c. the Product will be the Answer.

Examples.

930. What is the Neat Weight of 36 Bales of Cyprus Silk, each
weighing Gross 245 lb. Tare 14 lb. $\frac{1}{4}$ lb. Bale?

lb.		lb.	O R,
245	Gross of 1 Bale.	245	Gross
6		14	Tare
1470	Gross of 6 Bales.	231	Neat
6		6	
8820	Gross of 36 Bales.	1386	Neat of 6 Bales.
*504	Tare of ditto.	6	
8316	Neat of ditto.	8316	Neat of 36 Bales.

931. What is the Neat Weight of 14 Hogheads of Tobacco, each
5C. 2 Qrs. 17 lb. Gross, Tare 100 lb. $\frac{1}{4}$ lb. Hoghead?

C. Qrs. lb.		Qrs. lb.
5 : 2 : 17		Tare of 1 Hoghead is 3 : 16
2		2
11 : 1 : 6		1 : 3 : 4
7		7
79 : — : 14	Gross	
* 12 : 2 : —	Tare	
66 : 2 : 14	Neat	

O R,

C. Qrs. lb.	
5 : 2 : 17	Gross
3 : 16	Tare
4 : 3 : 1	Neat
7	
33 : 1 : 7	
2	
66 : 2 : 14	Neat of 14 Hogheads.

932. How

932. How many C. Neat are there in 6 Hogsheads of Barbadoes Sugar, weighing as follows,

C.	Qrs.	lb.	Qrs.	lb.
8	3	23		
8	2	21	Tare	3 : 7 each.
8	—	12		6
8	1	16		
7	3	20		4 : 3 : 14
8	—	16		

Gross	50	—	24	} of 6 Hogsheads.
Tare	4	3	14	
Neat	45	1	10	

Examples for the Learner's Exercise.

What is the Neat Weight of 7 Hogsheads, each } *Answer.*
weighing Gross 5C. 3Qrs. 9lb. Tare 100 lb. ? } C. Qrs. lb.
34 : 2 : 7

Find the Neat Weight of 70 Bales of Silk, each weighing }
Gross 238 lb. Tare 15 lb. $\frac{1}{4}$ lb. Bale ? } lb. 17617

What is the Neat Weight of 17 Bags of Cotton }
Yarn, weighing Gross 28C. 3Qrs. 4lb. Tare 9lb. } C. Qrs. lb.
 $\frac{1}{4}$ lb. Bag ? } 27 : 1 : 19

What cost 5 Hogsheads of Virginia Tobacco, weighing as follows, at £ 4 : 3 : 8 $\frac{1}{4}$ C. ?

No	C.	Qrs.	lb.	lb.
1	5	3	17	Tare 100 each.
2	5	—	27	
3	5	1	26	
4	5	3	27	
5	5	2	—	

Answer £ 98 : 18 : 6.

III. WHEN the Tare is at so much $\frac{1}{4}$ C.

R U L E.

Divide the Gross Weight by the Part or Parts that the given Tare is of a C.

Subtract the Tare from the Gross, the Difference will be the Neat Weight.

Examples.

Examples.

933. Gross 173 : 3 : 17, Tare 16

How many C. neat?

C. Qrs. lb.
lb. 173 : 3 : 17 Gross }
16 --- 7 24 : 3 : 10 Tare } Sub.

Answer 149 : — : 7 Neat.

934. Gross Weight 27 C. 2 Qrs. 13 lb.
Tare 14 lb. How many
lb. neat?

C. Qrs. lb.
lb. 27 : 2 : 13 Gross }
14 --- 8 3 : 1 : 22 Tare } Sub.

24 : — : 19 Neat.

24

24

2419

Ans. 2707 lb. Neat.

935. Gross Weight of Oil is 47 C. 2 Qrs. 17 lb. Tare 18 lb. How many Gallons neat?

C. Qrs. lb.
47 : 2 : 17 Gross.

lb. 16 --- 7 6 : 3 : 6 }
2 --- 1 — : 3 : 11 } Add.

18 7 : 2 : 17 Tare.

40 : — : — Neat.

lb. Gall. C.

7½ — 1 — 40

112

4480

2

8960

15 { 5
1792
3

Answer 597 Gallons neat.

Gross and Tare. 215

O R,

C. Qrs. lb.

27 : 1 : 13

27

27

2769

lb. 3093 lb. Gross. }
14 --- 8 386 lb. Tare. } Subtract.

Answer 2707 lb. Neat.

Find the Neat Weight as before.

Then since 1 Gallon of Oil is 7½ lb.
make this proportion.

As 7½ lb. is to 1 Gallon, so is the neat
Weight 40 C. to 597 Gallons, the
Answer.

O R,

Multiply the lb. neat 4480 by 2, then
divide the Product 8960 by 15, the
Quotient 597 Gallons will be the
Answer.

936. *Gross Weight* 17 : 1 : 17, *Tare* 19 $\frac{1}{2}$ C. how many C. neat?

$$\begin{array}{r}
 \text{C. } \frac{\text{Qr.}}{2} \text{ lb.} \quad \text{lb.} \\
 17 : 1 : 17 \text{ Gross.} \\
 \text{lb.} \\
 16 \text{ -- } \frac{1}{2} \quad 2 : 1 : 26 \\
 2 \text{ -- } \frac{1}{2} \quad \text{---} : \text{---} : 20 \\
 1 \text{ -- } \frac{1}{2} \quad \text{---} : \text{---} : 10 \\
 \hline
 19 \quad 2 : 3 : \text{--- Tare.} \\
 \hline
 \text{C. } 14 : 2 : 17 \text{ Neat.}
 \end{array}$$

Examples for the Learner's Exercise.

	C. Qrs. lb.	lb.		Answer.
Gross Weight 17 : 2 : 15, Tare 16 $\frac{1}{2}$ C. how many C. neat?	17	2	15	15 : --- : 13
What is the Neat Weight of 21 Barrels of Figs, each 2 C. 1 Qr. 13 lb. Gross, Tare 14 lb. $\frac{1}{2}$ C. ?	43	1	26	43 : 1 : 26
What is the Neat Weight of 7 Barrels of Pot-Ash, each weighing Gross 201 lb. Tare 10 lb. $\frac{1}{2}$ C. ?	1281	6	02	1281 : 6

WHEN Trett is allowed.

R U L E.

Subtract the Tare from the Gross, the Remainder is called Suttle.

Divide the Suttle by 26, the Quotient will be the Trett.

Lastly, Subtract the Trett from the Suttle Weight, the Remainder will be the Neat Weight.

Examples.

937. *Gross* 9 C. 2 Qrs. 17 lb. *Tare* 37 lb. *Trett* 4 lb. $\frac{1}{2}$ 104 lb. how many C. neat?

lb.	C. Qrs. lb.	C. Qrs. lb.
9 : 2 : 17 Gross.	26) 9 : 1 : 8 (--- : 1 : 12 Trett.	
37 = 1 : 9 Tare.	4	
9 : 1 : 8 Suttle.	37 (1 Qr.	
--- : 1 : 12 Trett.	26	
Answer 8 : 3 : 24 Neat.	11	
	28	

$$\begin{array}{r}
 26 \overline{) 316} (12 \text{ lb.} \\
 \underline{26} \\
 56 \\
 \underline{52} \\
 4 \\
 \underline{}
 \end{array}$$

938. *Gross*

TICE.

Gross, Tare, and Trett. 217

938. Gross 17C. 2Qrs. 8lb. Tare 57lb. Trett 4lb. ff 104lb. how many lb. neat?

C. Qrs. lb.

17 : 2 : 8

17

17

1764

1968 lb. Gross

57 lb. Tare.

1911 lb. Suttle.

73 lb. Trett.

1838 lb. Neat.

26) 1911 (73 lb. Trett,

182

91

78

—

13

—

Or if you proceed as above, and reduce the Neat Weight into lb. the Answer will be the same.

939. What is the Neat Weight in lb. of 8 Bales of Cotton weighing as follows, with the Allowance of Trett?

C. Qrs. lb.

3 : 1 : 7 Tare allowed 3 : 13

2 : 3 : —

2 : 3 : 5

3 : — : 15

2 : 3 : 16

3 : 1 : 10

3 : — : 27

2 : 3 : 4

24 : 1 : — Total Gross.

26) 2619 (100 lb. Trett.

26

19

—

C. Qrs. lb.

24 : 1 : — Gross.

3 : 13 Tare.

23 : 1 : 15

23

23

23

2343

2619 lb. Suttle.

100 lb. Trett.

Answer 2519 lb. Neat.

Examples for the Learner's Exercise.

Gross 17C. 2Qrs. 13lb. Tare 49lb. Trett 4lb. ff 104lb. } lb. 1850
how many lb. neat?

Gross 11C. — Qrs. 7lb. Tare 51lb. Trett 4lb. ff } C. Qrs. lb.
104lb. how many C. neat? } 10 : — : 23

Gross Weight 97C. 1Qr. 17lb. Tare 1C. 2Qrs. 19lb. Trett } lb. 10310
4lb. ff 104lb. how many lb. neat?

FF

WHEN

WHEN Cloff is allowed.

R U L E.

After Tare and Trett are deducted, the Remainder is called Suttle Weight.

Multiply the C. Suttle by 2, then divide the Product by 3, the Quotient will be the *lb.* Cloff.

Subtract the Cloff from the Suttle, the Remainder will be the Neat Weight.

Example.

940. What is the Neat Weight of 17C. 3Qrs. 17lb. Gross, Tare 3C. 3Qrs. 19lb. Trett 4lb. $\frac{1}{4}$ 104lb. Cloff 2lb. for 3 C.?

C. Qrs. lb.

17 : 3 : 17 Gross.

3 : 3 : 19 Tare.

13 : 3 : 26 Suttle.

— : 2 : 4 Trett.

13 : 1 : 22 Suttle.

8 Cloff.

Answer 13 : 1 : 14 Neat.

C. Qrs. lb. C. Qrs. lb.

26)13 : 3 : 26(— : 2 : 4 Trett.

4

55(2Qrs.

52

3

28

110(4lb.

104

6

—

C.

13

2

26

3

Cloff 8 lb.

*Example for the Learner's Exercise.**Answer.*

What is the Neat Weight of 27C. 3Qrs. 17lb. Gross, Tare } C.
5C. 3Qrs. 21lb. Trett 4lb. $\frac{1}{4}$ 104lb. Cloff 2lb. $\frac{1}{4}$ 3C. ? } 21



P R A C T I C E.

XVII. To find the Value of Goods sold by particular Quantities, viz.

I. BY the Score.

II. Examples in Beer and Ale Measure.

III. Examples in Round Timber.

IV. By 5 Score to the Hundred.

V. By 112 lb. to the C.

VI. By 6 Score to the Hundred.

VII. By the great Gross.

VIII. By the 1000.

I. TO find the Value of Goods sold by the Score.

The Price of 1 is given, to find the Price of 1 Score.

If the given Price be Shillings and Pence, or only Pence.

R U L E.

Divide the given Price in Pence by 12, the Quotient will be the Answer in Pounds, the Remainder will be so many times 1s. 8d.

Examples.

941. At 3d. each, what is that d^{d} Score?

$$\begin{array}{r} 3d. \\ 12 \end{array}$$

$\text{L} - : 5 : -$ Answer.

Or by inverting the Question.

$$s. 1 : 8d.$$

$$\underline{3}$$

$$s. 5 : -$$

942. At 3s. 5d. each, what is that d^{d} Score?

$$\begin{array}{r} s. \quad d. \\ 3 : 5 \\ 12 \end{array}$$

$$\begin{array}{r} 41 \\ 12 \end{array}$$

$\text{L} 3 : 8 : 4$ Answer.

It may be remarked, that when the Price is Shillings and Pence, the Answer will be just as many Pounds as there are Shillings, and as many times 1s. 8d. as there are Pence: if Farthings are given, for $\frac{1}{4}$ d. reckon 5d for $\frac{1}{4}$ d. 10d. for $\frac{1}{2}$ d. 15. 3d.

F f

Examples

*Examples for the Learner's Exercise.**Answer.*

- At 7*d.* each, what cost 1 Score? — — — £ — : 11 : 8
 What cost 1 Score, at 9*d.* each? — — — — : 15 : —
 At 8*s.* 7*d.* each, what cost 1 Score? — — — 8 : 11 : 8
 What cost 1 Score, at 3*s.* 7½*d.* each? — — — 3 : 12 : 1
 At 9½*d.* each, what cost 1 Score? — — — — : 15 : 10
 At 3*s.* 11½*d.* each, what cost 1 Score? — — — 3 : 19 : 7

TABLE of aliquot Parts.

20 the Integer.

2	— is —	$\frac{1}{10}$
4	—	$\frac{1}{5}$
5	—	$\frac{2}{10}$
6	—	$\frac{3}{10}$
8	—	$\frac{4}{10}$

10	— is —	$\frac{1}{2}$
12	—	$\frac{2}{5}$
14	—	$\frac{3}{7}$
15	—	$\frac{2}{3}$
16	—	$\frac{3}{8}$
18	—	$\frac{2}{3}$

Examples.

943. What cost 3, at 8
- s.*
- 7
- d.*
- Ⓕ Score?

s. 8 : 7*d.*

$$\begin{array}{r} 2 \text{ --- } \frac{1}{10} \text{ ---} : 10\frac{1}{2} \\ 1 \text{ --- } \frac{1}{2} \text{ ---} : 5 \\ \hline 3 \quad \textit{s. 1 : 3\frac{1}{2} Answer.} \end{array}$$

946. What cost 17, at 19
- s.*
- 7
- d.*
- Ⓕ Score?

s. 19 : 7*d.*

$$\begin{array}{r} 10 \text{ --- } \frac{1}{2} \text{ ---} : 9 : 9\frac{1}{2} \\ 5 \text{ --- } \frac{1}{2} \text{ ---} : 4 : 10\frac{1}{2} \\ 2 \text{ --- } \frac{1}{5} \text{ ---} : 1 : 11\frac{1}{2} \\ \hline 17 \quad \textit{s. 16 : 7\frac{1}{2} Answer.} \end{array}$$

* Of 10.

944. What cost 7, at 19
- s.*
- 7
- d.*
- Ⓕ Score?

s. 19 : 7*d.*

$$\begin{array}{r} 5 \text{ --- } \frac{1}{2} \text{ ---} : 4 : 10\frac{1}{2} \\ 2 \text{ --- } \frac{1}{10} \text{ ---} : 1 : 11\frac{1}{2} \\ \hline 7 \quad \textit{s. 6 : 10\frac{1}{2} Answer.} \end{array}$$

947. What cost 19, at £ 1 : 18 : 7 Ⓕ Score?

£ 1 : 18 : 7

$$\begin{array}{r} 10 \text{ --- } \frac{1}{2} \text{ ---} : 19 : 3\frac{1}{2} \\ 5 \text{ --- } \frac{1}{2} \text{ ---} : 9 : 7\frac{1}{2} \\ 4 \text{ --- } \frac{1}{5} \text{ ---} : 7 : 8\frac{1}{2} \\ \hline 19 \quad \textit{£ 1 : 16 : 7\frac{1}{2} Answer.} \end{array}$$

* Of 20.

945. What cost 18, at 7
- s.*
- 3
- d.*
- Ⓕ Score?

s. 7 : 3*d.*

$$\begin{array}{r} 9 \\ \hline 6\frac{1}{2} : 3 \\ 10 \\ \hline \textit{s. 6 : 6\frac{1}{2} Answer.} \end{array}$$

948. What cost 1, at £ 3 : 18 : 7 Ⓕ Score?

£ 3 : 18 : 7

$$\begin{array}{r} 2 \text{ --- } \frac{1}{10} \text{ ---} : 7 : 10\frac{1}{2} \\ 1 \text{ --- } \frac{1}{2} \text{ ---} : 3 : 11 \text{ Answer.} \end{array}$$

Examples

Examples for the Learner's Exercise.

	Answer.
What cost 14, at 3s. 7d. $\frac{d}{p}$ Score? —	£ — : 2 : 6
What cost 7, at 14s. 9d. $\frac{d}{p}$ Score? —	— : 5 : 1 $\frac{1}{2}$
What cost 9, at 7s. 3d. $\frac{d}{p}$ Score? —	— : 3 : 3
What cost 17, at £ 3 : 10 : 6 $\frac{d}{p}$ Score? —	2 : 19 : 11
At 8s. 11d. $\frac{d}{p}$ Score, what cost 19? —	— : 8 : 5 $\frac{1}{2}$
At £ 2 : 17 : 8 $\frac{d}{p}$ Score, what cost 1? —	— : 2 : 10 $\frac{1}{2}$

II. BEER and ALE Measure.

To find the Value of a Barrel of Beer.

If the given Price of a Gallon be Pence, or Shillings and Pence.

R U L E.

Multiply the given Price in Pence by 3, the Product will be the Answer in Shillings, bring the Shillings into Pounds.

Examples.

949. What cost 1 Barrel of Beer, at 9d. $\frac{d}{p}$ Gallon?	950. What cost 1 Barrel of Beer, at 1s. $\frac{d}{p}$ Gallon?
$d. 9 \times 3 = 27s. = £ 1 : 7$ Answer.	$d. 12 \times 3 = 36s. = £ 1 : 16$ Answer.

TO find the Value of a Hoghead of Beer.

If the given Price of a Gallon be Pence, or Shillings and Pence.

R U L E.

Multiply the given Price by 9, the Product will be the Answer in Sixpences, bring them into Pounds.

Examples.

951. At 8 $\frac{1}{2}$ d. $\frac{d}{p}$ Gallon, what cost 1 Hoghead of Beer?	952. At 1s. 2 $\frac{1}{2}$ d. $\frac{d}{p}$ Gallon, what cost 1 Hoghead of Beer?
$d. 8\frac{1}{2} \times 9 = 76\frac{1}{2} = 38 : 3 =$ $£ 1 : 18 : 3$ Answer.	$d. 14\frac{1}{2} \times 9 = 128\frac{1}{2} = 64 : 1\frac{1}{2} =$ $£ 3 : 4 : 1\frac{1}{2}$ Answer.

TO find the Value of a Barrel of Ale.

If the given Price of a Gallon be Pence, or Shillings and Pence.

R U L E.

Multiply the given Price in Pence by 4, the Product will be the Answer in Eightpences, bring them into Pounds.

Examples.

Examples.

953. What cost 1 Barrel of Ale, at 10d. $\frac{1}{4}$ Gallon?

Eightp.

$$10 \times 4 = 40 \div 30 = \text{£ } 1 : 6 : 8$$

Answer.

Or by inverting the Question.

$$2s. 8d. \times 10 = \text{£ } 1 : 6 : 8 \text{ Answer.}$$

954. What cost 1 Barrel of Ale, at 7 $\frac{1}{2}$ d. $\frac{1}{4}$ Gallon?

7 $\frac{1}{2}$ d.

4

29 Eightpences.

2

58 Groats.

3

s. 19 : 4 *Answer.*

TO find the Value of a Hoghead of Ale.

If the given Price of a Gallon be Pence, or Shillings and Pence.

R U L E.

Divide the given Price in Pence by 5, the Quotient will be the Answer in Pounds.

Examples.

955. What cost 1 Hoghead of Ale, at 9d. $\frac{1}{4}$ Gallon?

$$4.9 \div 5 = \text{£ } 1 : 16 \text{ Answer.}$$

956. What cost 1 Hoghead of Ale, at 8 $\frac{1}{2}$ d. $\frac{1}{4}$ Gallon?

8 $\frac{1}{2}$ d.

5

£ 1 : 14 *Answer.*

Examples for the Learner's Exercise.

Answer.

At 7d. $\frac{1}{4}$ Gallon of Beer, what cost 1 Barrel? — £ 1 : 1 : —

At 1s. 3d. $\frac{1}{4}$ Gallon of Beer, what cost 1 Barrel? — 2 : 5 : —

At 9d. $\frac{1}{4}$ Gallon of Beer, what cost 1 Hoghead? — 2 : — : 6

At 1s. 3 $\frac{1}{2}$ d. $\frac{1}{4}$ Gallon of Beer, what cost 1 Hoghead? 3 : 8 : 7 $\frac{1}{2}$

At 5d. $\frac{1}{4}$ Gallon of Ale, what cost 1 Barrel? — — : 13 : 4

At 1s. 1 $\frac{1}{2}$ d. $\frac{1}{4}$ Gallon of Ale, what cost 1 Barrel? — 1 : 15 : 4

What cost 1 Hoghead of Ale, at 7d. $\frac{1}{4}$ Gallon? — 1 : 8 : —

What cost 1 Hoghead of Ale, at 1s. 5d. $\frac{1}{4}$ Gallon? — 3 : 8 : —

III. ROUND TIMBER.

Forty Feet make 1 Load or Ton of Round Timber.

If the given Price of 1 Foot be Shillings.

R U L E.

Multiply the given Price by 2, the Product will be the Answer in Pounds.

Examples.

Examples.

957. What cost 40 Feet, at 2s. each?

$$s. 2 \times 2 = \text{£ } 4 \text{ Answer.}$$

958. What cost 1 Load of Timber, at 7s. 4d. Foot?

$$s. 7 \times 2 = \text{£ } 14 \text{ Answer.}$$

IF the given Price of 1 Foot be Pence only, or Shillings and Pence.

R U L E.

Divide the given Price in Pence by 6, the Quotient will be the Answer in Pounds, the Remainder will be so many times 3s. 4d.

Examples.

959. What cost 40 Feet, at 13 d. each?

$$\begin{array}{r} 13 \text{ d.} \quad \text{O R,} \quad d. \quad 40 \text{ at } 13 d. \\ 6 \quad \quad \quad 1 \cdot \frac{1}{3} \quad 3 : 4 \end{array}$$

$$\text{£ } 2 : 3 : 4 \text{ Answer. } \text{£ } 2 : 3 : 4 A.$$

960. At 11. 7 d. 4d. Foot, what cost 1 Load?

$$\begin{array}{r} 19 d. \\ 6 \end{array}$$

$$\text{£ } 3 : 3 : 4 \text{ Answer.}$$

IF the given Price of 1 Foot be Farthings only, or Pence and Farthings.

R U L E.

Divide the given Price in Farthings by 6, as before, then divide that Quotient by 4, this last Quotient will be the Answer.

Examples.

961. What cost 40 Feet, at 3 Farthings each?

$$\begin{array}{r} 3 \text{ Far.} \\ 6 \\ \hline \text{—} : 10 \\ 4 \\ \hline \text{£ —} : 2 : 6 \text{ Answer.} \end{array}$$

962. At 17½ d. 4d. Foot, what cost 1 Load?

$$\begin{array}{r} 17 \frac{1}{2} d. \\ 4 \\ \hline 69 \\ 6 \\ \hline 11 : 10 \\ 4 \\ \hline \text{£ } 2 : 17 : 6 \text{ Answer.} \end{array}$$

O R,

Suppose every Shilling in the Price to be so many times £ 2, every Penny to be so many times 3s. 4d. and every Farthing to be 10d.

Examples.

963. What cost 40, at 13 d. each?

$$\begin{array}{l} s. 1 : - \times 2 = \text{£ } 2 : - : - \\ d. 1 \quad = - : 3 : 4 \end{array} \left. \vphantom{\begin{array}{l} s. 1 : - \times 2 = \text{£ } 2 : - : - \\ d. 1 \quad = - : 3 : 4 \end{array}} \right\} \text{Add.}$$

$$\text{£ } 2 : 3 : 4 \text{ Ans.}$$

964. What cost 40, at 3 Farthings each?

$$\begin{array}{r} 10 d. \\ 3 \\ \hline s. 2 : 6 \text{ Answer.} \end{array}$$

965. At

Examples.

953. What cost 1 Barrel of Ale, at 10d. $\frac{1}{4}$ Gallon?

Eightp.

$$10 \times 4 = 40 \div 30 = \text{£ } 1 : 6 : 8$$

Answer.

Or by inverting the Question.

$$25. 8d. \times 10 = \text{£ } 1 : 6 : 8 \text{ Answer.}$$

954. What cost 1 Barrel of Ale, at 7 $\frac{1}{4}$ d. $\frac{1}{4}$ Gallon?

7 $\frac{1}{4}$ d.

4

29 Eightpences.

2

58 Groats.

3

5. 19 : 4 Answer.

TO find the Value of a Hoghead of Ale.

If the given Price of a Gallon be Pence, or Shillings and Pence.

R U L E.

Divide the given Price in Pence by 5, the Quotient will be the Answer in Pounds.

Examples.

955. What cost 1 Hoghead of Ale, at 9d. $\frac{1}{4}$ Gallon?

$$4.9 \div 5 = \text{£ } 1 : 16 \text{ Answer.}$$

956. What cost 1 Hoghead of Ale, at 8 $\frac{1}{2}$ d. $\frac{1}{4}$ Gallon?

8 $\frac{1}{2}$ d.

5

£ 1 : 14 Answer.

Examples for the Learner's Exercise.

Answer.

At 7d. $\frac{1}{4}$ Gallon of Beer, what cost 1 Barrel? — £ 1 : 1 : —

At 1s. 3d. $\frac{1}{4}$ Gallon of Beer, what cost 1 Barrel? — 2 : 5 : —

At 9d. $\frac{1}{4}$ Gallon of Beer, what cost 1 Hoghead? — 2 : — : 6

At 1s. 3 $\frac{1}{4}$ d. $\frac{1}{4}$ Gallon of Beer, what cost 1 Hoghead? 3 : 8 : 7 $\frac{1}{2}$

At 5d. $\frac{1}{4}$ Gallon of Ale, what cost 1 Barrel? — — : 13 : 4

At 1s. 1 $\frac{1}{4}$ d. $\frac{1}{4}$ Gallon of Ale, what cost 1 Barrel? — 1 : 15 : 4

What cost 1 Hoghead of Ale, at 7d. $\frac{1}{4}$ Gallon? — 1 : 8 : —

What cost 1 Hoghead of Ale, at 1s. 5d. $\frac{1}{4}$ Gallon? — 3 : 8 : —

III. ROUND TIMBER.

Forty Feet make 1 Load or Ton of Round Timber.

If the given Price of 1 Foot be Shillings.

R U L E.

Multiply the given Price by 2, the Product will be the Answer in Pounds.

Examples.

Examples.

957. What cost 40 Feet, at 2s. each?

$$s. 2 \times 2 = \text{£} 4 \text{ Answer.}$$

958. What cost 1 Load of Timber, at 7s. 4d. Foot?

$$s. 7 \times 2 = \text{£} 14 \text{ Answer.}$$

IF the given Price of 1 Foot be Pence only, or Shillings and Pence.

R U L E.

Divide the given Price in Pence by 6, the Quotient will be the Answer in Pounds, the Remainder will be so many times 3s. 4d.

Examples.

959. What cost 40 Feet, at 13d. each?

$$\begin{array}{r} 13d. \quad \text{OR, } d. \quad | 40 \text{ at } 13d. \\ 6 \quad \quad \quad 1 \cdot \frac{1}{2} \quad | 3 : 4 \\ \hline \end{array}$$

$$\text{£} 2 : 3 : 4 \text{ Answer. } \text{£} 2 : 3 : 4 \text{ d.}$$

960. At 1s. 7d. 4d. Foot, what cost 1 Load?

$$\begin{array}{r} 19d. \\ 6 \\ \hline \end{array}$$

$$\text{£} 3 : 3 : 4 \text{ Answer.}$$

IF the given Price of 1 Foot be Farthings only, or Pence and Farthings.

R U L E.

Divide the given Price in Farthings by 6, as before, then divide that Quotient by 4, this last Quotient will be the Answer.

Examples.

961. What cost 40 Feet, at 3 Farthings each?

$$\begin{array}{r} 3 \text{ Far.} \\ 6 \\ \hline \end{array}$$

$$\text{—} : 10$$

$$\begin{array}{r} 4 \\ \hline \end{array}$$

$$\text{£} \text{—} : 2 : 6 \text{ Answer.}$$

962. At 17½d. 4d. Foot, what cost 1 Load?

$$\begin{array}{r} 17\frac{1}{2}d. \\ 4 \\ \hline \end{array}$$

$$\begin{array}{r} 69 \\ 6 \\ \hline \end{array}$$

$$\text{—} : 10$$

$$\begin{array}{r} 4 \\ \hline \end{array}$$

$$\text{£} 2 : 17 : 6 \text{ Answer.}$$

O R,

Suppose every Shilling in the Price to be so many times £ 2, every Penny to be so many times 3s. 4d. and every Farthing to be 10d.

Examples.

963. What cost 40, at 13d. each?

$$\begin{array}{l} s. 1 : \text{—} \times 2 = \text{£} 2 : \text{—} : \text{—} \\ d. 1 \quad = \text{—} : 3 : 4 \end{array} \quad \left. \begin{array}{l} \\ \\ \end{array} \right\} \text{Ans.}$$

$$\text{£} 2 : 3 : 4 \text{ Ans.}$$

964. What cost 40, at 3 Farthings each?

$$\begin{array}{r} 10d. \\ 3 \\ \hline \end{array}$$

$$s. 2 : 6 \text{ Answer.}$$

965. At

224. Goods sold by 5 Score to the Hundred.

PRAC.

965. At $17\frac{1}{2}d.$ $\frac{1}{4}$ Foot, what cost
1 Load?

$$\begin{array}{r} s. \quad d. \quad \text{£} \quad s. \quad d. \\ 1 : - \times 2 = 2 : - : - \\ 3 : 4 \times 5 = - : 16 : 8 \\ \quad \quad \quad = - : - : 10 \\ \hline \text{£} 2 : 17 : 6d. \end{array}$$

966. At $1s. 11\frac{1}{2}d.$ $\frac{1}{4}$ Foot, what
cost 1 Load?

$$\begin{array}{r} s. \quad d. \quad \text{£} \quad s. \quad d. \\ 1 : - \times 2 = 2 : - : - \\ 3 : 4 \times 11 = 1 : 16 : 8 \\ \quad \quad \quad = - : 2 : 6 \\ \hline \text{£} 3 : 19 : 2d. \end{array}$$

Examples for the Learner's Exercise.

Answer.

- At $3s.$ $\frac{1}{4}$ Foot, what cost 1 Load? $\text{£} 6 : - : -$
 At $1s. 9d.$ $\frac{1}{4}$ Foot, what cost 1 Load? $3 : 10 : -$
 What cost 40 Feet, at $23d.$ each? $3 : 16 : 8$
 At $7\frac{1}{2}d.$ $\frac{1}{4}$ Foot, what cost 1 Load? $1 : 5 : 10$
 At $2s. 11\frac{1}{2}d.$ $\frac{1}{4}$ Foot, what cost 1 Load? $1 : 18 : 2$
 At a $\frac{1}{4}d.$ $\frac{1}{4}$ Foot, what cost 1 Load? $- : 1 : 8$

IV. TO find the Value of Goods sold by 5 Score to the Hundred.

I. If the given Price of 1 be Pounds and Shillings, or only Shillings.

R U L E.

Multiply the given Price in Shillings by 5, the Product will be the Answer in Pounds.

Examples.

967. At $17s.$ $\frac{1}{4}$ Ell, what cost
100 Ells?

$$\begin{array}{r} 17s. \\ 5 \\ \hline \text{£} 85 \text{ Answer.} \end{array}$$

969. At $35s.$ $\frac{1}{4}$ Yard, what cost
100 Yards?

$$\begin{array}{r} 35s. \\ 5 \\ \hline \text{£} 175 \text{ Answer.} \end{array}$$

968. At $8s.$ $\frac{1}{4}$ C. what cost
100 C.?

$$\begin{array}{r} 8s. \\ 5 \\ \hline \text{£} 40 \text{ Answer.} \end{array}$$

970. At $\text{£} 3 : 17$ $\frac{1}{4}$ C. what
cost 100 C. or 5 Tons?

$$\begin{array}{r} \text{£} 3 : 17 \\ 20 \\ \hline 77 \\ 5 \\ \hline \text{£} 385 \text{ Answer.} \end{array}$$

Examples

Examples for the Learner's Exercise.

	Answer.
At 13s. 4d. Ell, what cost 100 Ells? — — —	£ 65
At 19s. 4d. Ell, what cost 100 Ells? — — —	95
At 25s. 4d. Yard, what cost 100 Yards? — — —	125
What cost 100 Quarters, at 16s. 4d. Quarter? — — —	80
At £ 5 : 17 4d. Gros, what cost 100 Gros? — — —	585

II. IF the given Price of 1 be Pence only, or Shillings and Pence.

R U L E.

Multiply the given Price in Pence by 5, then divide that Product by 12, the Quotient will be the Answer in Pounds, the Remainder will be so many times 3s. 4d.

Examples.

971. If 1 Yard of Cloth cost 7d. what cost 100 Yards?

$$\begin{array}{r} 7d. \\ 5 \\ \hline 35 \\ 12 \end{array}$$

£ 2 : 18 : 4 Answer.

973. What cost 100 Chaldrons, at 31s. 6d. 4d. Chaldron?

$$\begin{array}{r} s. 31 : 6d. \\ 12 \\ \hline 378 \\ 5 \\ \hline 1890 \\ 12 \end{array}$$

£ 157 : 10 Answer.

972. At 3s. 5d. 4d. Bushel, what cost 100 Bushels?

$$\begin{array}{r} s. 3 : 5d. \\ 12 \\ \hline 41 \\ 5 \\ \hline 205 \\ 12 \end{array}$$

£ 17 : 1 : 8 Answer.

O R,

$$\begin{array}{r} s. 31 : 6d. \\ 5 \\ \hline d. 155 \\ 6 \dots \frac{1}{2} \quad 2 : 10 \end{array}$$

£ 157 : 10 Answer.

974. At 1s. 11d. $\frac{1}{2}$ Bushel, what cost 100 Bushels?

s. 1 : 11 d.

O R,

12

—

23

—

5

—

115

—

12

—

£ 9 : 11 : 8 Answer.

*Bush.*100 at 2s. $\frac{1}{2}$ Bush. want-

[ing 100d.]

s.

2

—

d. 100 =

10

:

—

:

8

:

4

} Subtract

£ 9 : 11 : 8 Answer.

BUT if the given Price of 1 be Shillings and Pence.

R U L E.

Multiply the Price by 5, the Product under the Place of Shillings will be the Answer in Pounds, and the Product under the Place of Pence will be so many times 1s. 8d.

*Examples.*975. At 3s. 5d. $\frac{1}{2}$ Bushel, what cost 100 Bushels?

s. 3 : 5 d.

5

17 : 1

Answer £ 17 : 1 : 8

976. What cost 100 Chaldrons, at 31s. 6d. $\frac{1}{2}$ Chaldron?

s. 31 : 6 d.

5

157 : 6

Answer £ 157 : 10

*Examples for the Learner's Exercise.*What cost 100 Ells, at 9d. $\frac{1}{2}$ Ell?*Answer.*

£ 3 : 15 : —

At 3s. 7d. $\frac{1}{2}$ Bushel, what cost 100 Bushels?

17 : 18 : 4

At 35s. 7d. $\frac{1}{2}$ Load, what cost 100 Loads?

177 : 18 : 4

At 3s. 9d. $\frac{1}{2}$ Bushel, what cost 100 Bushels?

18 : 15 : —

IF the given Price of 1 be Farthings.

R U L E.

Multiply the given Price by 5, the Product will be so many times 5d.

*Examples.*977. 100 Apples, at $\frac{1}{4}$ d. each.

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5

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979.

100 Oranges, at $\frac{1}{2}d.$ each.

$$\begin{array}{r} 3 \\ 5 \\ \hline 15 \times 5 = 75 = 6 : 3 \text{ Answer.} \end{array}$$

TO find the Price of one, at so much $\frac{1}{5}$ Hundred of 5 Score.

General RULE.

Multiply the given Price by 12, then divide the Product by 5, the Quotient will be the Answer in Pence.

But if the Price be Pounds only.

RULE.

Divide the given Price by 5, the Quotient will be the Answer in Shillings.

Examples.

980. If 100 Ells cost £85, what cost 1 Ell?

$$\begin{array}{r} £ 85 \\ 5 \\ \hline s. 17 \text{ Answer.} \end{array}$$

981. If 100 C. or 5 Tons, cost £40, what cost 1 C.?

$$\begin{array}{r} £ 40 \\ 5 \\ \hline s. 8 \text{ Answer.} \end{array}$$

982. If 100 Yards cost £175, what cost 1 Yard?

$$\begin{array}{r} £ 175 \\ 5 \\ \hline s. 35 \text{ Answer.} \end{array}$$

983. If 100 Yards cost £2 : 18 : 4, what cost 1 Yard?

$$\begin{array}{r} £ 2 : 18 : 4 \\ 12 \\ \hline 35 : - : - \\ 5 \\ \hline d. 7 \text{ Answer.} \end{array}$$

$$\begin{array}{r} 2 : 18 : 4 \\ 10 \\ \hline - : 5 : 10 \\ 10 \end{array}$$

$$£ - : - : 7 \text{ Answer.}$$

984. What cost 1 Bushel, if 100 Bushels, cost £17 : 1 : 8?

$$\begin{array}{r} £ 17 : 1 : 8 \\ 12 \\ \hline 205 : - : - \\ 5 \\ \hline 41 d. \\ 12 \\ \hline s. 3 : 5 \text{ Answer.} \end{array}$$

985. If 100 Chaldrons cost 157*l*.
10*s*. what cost 1 Chaldron?

$$\begin{array}{r} \text{£ } 157 : 10 \\ \hline 12 \end{array}$$

$$1890 : -$$

$$\underline{5}$$

$$378 \text{ d.}$$

$$\underline{12}$$

$$1. 31 : 6 \text{ Answer.}$$

986. If 100 Bushels cost 9*l*. 11*s*.
8*d*. what cost 1 Bushel?

$$\begin{array}{r} \text{£ } 9 : 11 : 8 \\ \hline 12 \end{array}$$

$$115 : - : -$$

$$\underline{5}$$

$$23 \text{ d.}$$

$$\underline{12}$$

$$1. 1 : 11 \text{ Answer.}$$

987. If 100 Yards cost £11 : 7 : 9,
what cost 1 Yard?

$$\begin{array}{r} \text{£ } 11 : 7 : 9 \\ \hline 12 \end{array}$$

$$136 : 13 : -$$

$$\underline{5}$$

$$27 : 6 : 7$$

$$\underline{12}$$

$$1. 2 : 3 \text{ Answer.}$$

Find the Value of $\frac{6}{12}$ of a Penny,
by Case IV. of Vulgar Fractions, and
you will find it $\frac{1}{2}$ d. so the Answer
will be 2*s*. 3 $\frac{1}{2}$ d.

988. If 100 Apples cost 2*s*. 1*d*.
what cost 1?

$$\begin{array}{r} 2 : 1 \text{ d.} \\ \hline 12 \end{array}$$

$$1 : 5 : -$$

$$\underline{5}$$

$$- : 5 : -$$

$$\text{Answer } \frac{1}{4} \text{ d.}$$

5 Shillings being $\frac{1}{4}$ Part of a £,
therefore the Price of 1 is $\frac{1}{4}$ Part of
a Penny.

989. If 100 Oranges cost 4*s*. 2*d*.
what cost 1?

$$\begin{array}{r} 4 : 2 \text{ d.} \\ \hline 12 \end{array}$$

$$2 : 10 : -$$

$$\underline{5}$$

$$- : 10 : -$$

$$\text{Answer } \frac{1}{4} \text{ d.}$$

990. If 100 Lemons cost 6*s*. 3*d*.
what cost 1?

$$\begin{array}{r} 6 : 3 \text{ d.} \\ \hline 12 \end{array}$$

$$3 : 15 : -$$

$$\underline{5}$$

$$- : 15 : -$$

$$\text{Answer } \frac{1}{4} \text{ d.}$$

Examples for the Learner's Exercise.

Answer.
 If 100 Ells cost £ 65, what cost 1 Ell? — £ — : 13 : —
 If 100 Yards cost £ 95, what cost 1 Yard? — — : 19 : —
 If 100 Yards cost £ 125, what cost 1 Yard? — 1 : 5 : —
 If 100 Quarters cost £ 80, what cost 1 Quarter? — — : 16 : —
 If 100 Grofs cost £ 585, what cost 1 Grofs? — 5 : 17 : —
 If 100 Chaldron cost £ 157 : 10, what cost 1 Chaldron? 1 : 11 : 6
 If 100 Bushels cost £ 9 : 11 : 8, what cost 1 Bushel? — : 1 : 11

TABLE of aliquot Parts.

100 the Integer.

5	— is —	$\frac{1}{20}$
10	—	$\frac{1}{10}$
20	—	$\frac{1}{5}$
25	—	$\frac{1}{4}$
50	—	$\frac{1}{2}$

Also,

30	— is —	$\frac{3}{10}$
40	—	$\frac{2}{5}$
60	—	$\frac{3}{5}$ or $\frac{6}{10}$
70	—	$\frac{7}{10}$
75	—	$\frac{3}{4}$
80	—	$\frac{4}{5}$
90	—	$\frac{9}{10}$

Examples.

991. 23, at £ 2 : 1 : 6 d^{p} 100.

£ 2 : 1 : 6

20	—	$\frac{1}{5}$	—	:	8	:	$3\frac{1}{2}$
2	—	$\frac{1}{10}$	—	:	—	:	$9\frac{1}{2}$
1	—	$\frac{1}{20}$	—	:	—	:	$4\frac{1}{2}$

23 £ — : 9 : 6 *Answer.*992. 19, at £ 1 : 1 : 8 d^{p} 100.

£ 1 : 1 : 8

20	—	$\frac{1}{5}$	—	:	4	:	$4\frac{1}{2}$
1	—	$\frac{1}{20}$	—	:	—	:	$2\frac{1}{2}$

19 £ — : 4 : $1\frac{1}{2}$ *Answer.*993. 90, at £ 3 : 17 : 6 d^{p} 100.

90	—	$\frac{3}{10}$	—	:	17	:	6
34	—	$\frac{17}{10}$	—	:	—	:	—

£ 3 : 9 : 9 *Answer.*

O R,

£	s.	d.
10	—	$\frac{1}{10}$
3	:	17
—	:	7
—	:	9

£ 3 : 9 : 9 *Answer.*994. 60, at £ 4 : 13 : 11 d^{p} 100.

60	—	$\frac{3}{5}$	—	:	13	:	11
14	—	$\frac{7}{5}$	—	:	—	:	—

£ 2 : 16 : 4 *Answer.*995. 33, at £ 4 : 16 : 7 d^{p} 100.

33	—	$\frac{33}{100}$	—	:	16	:	7
14	—	$\frac{14}{100}$	—	:	—	:	—

30	—	$\frac{3}{10}$	—	:	1	:	8
3	—	$\frac{3}{100}$	—	:	—	:	10

33 £ 1 : 11 : $10\frac{1}{2}$ *Answer.*

996. 99

996. 99, at £ 6 : 17 : 10 d^{p} 100.

$$\begin{array}{r} \text{£ } 6 : 17 : 10 \\ \text{---} : \text{---} : \text{---} \\ \text{---} : \text{---} : 9 \\ \hline 62 : \text{---} : 6 \\ 10 \end{array}$$

$$\begin{array}{r} 90 \text{ ---} : 6 : 4 : \text{---} \\ 9 \text{ ---} : \text{---} : 12 : 4 \\ \hline \end{array}$$

99 £ 6 : 16 : 5 $\frac{1}{2}$ Answer.

* Of 90.

997. At £ 2 : 18 : 3 d^{p} 100, what cost 105?

$$\begin{array}{r} 100 \text{ ---} : 2 : 18 : 3 \\ 5 \text{ ---} : \text{---} : 2 : 10 \frac{1}{2} \end{array} \left. \begin{array}{l} \text{Add.} \\ \text{---} : \text{---} : \text{---} : \text{---} \end{array} \right\}$$

105 £ 3 : 11 : 1 $\frac{1}{2}$ Answer.998. What cost 270, at £ 2 : 18 : 3 d^{p} 100?

$$\begin{array}{r} \text{£ } 2 : 18 : 3 \\ \text{---} : \text{---} : \text{---} \\ \text{---} : \text{---} : 7 \\ \hline 20 : 7 : 9 \\ 10 \end{array}$$

$$\begin{array}{r} 70 \text{ ---} : 2 : \text{---} : 9 \frac{1}{2} \\ \text{Top Line} \times 2 : 5 : 16 : 6 \end{array}$$

£ 7 : 17 : 3 $\frac{1}{2}$ Answer.999. What cost 299, at £ 3 : 15 : 7 d^{p} 100?

$$\begin{array}{r} \text{£ } 3 : 15 : 7 \\ \text{---} : \text{---} : \text{---} \\ \text{---} : \text{---} : 9 \\ \hline 33 : 10 : 3 \\ 10 \end{array}$$

$$\begin{array}{r} 90 \text{ ---} : 3 : 7 : \text{---} \\ 9 \text{ ---} : \text{---} : 6 : 8 \frac{1}{2} \\ \hline \end{array}$$

Top Line $\times 2$ £ 71 : 14 : 10 $\frac{1}{2}$ Answer.

* Of 90.

Examples for the Learner's Exercise.

What cost 21, at 47s. 5d. d^{p} 100?	Answer.
At £ 2 : 7 d^{p} 100, what cost 18?	£ --- : 9 : 11 $\frac{1}{2}$
At 35s. d^{p} 100, what cost 40?	--- : 9 : 5 $\frac{1}{2}$
What cost 75, at £ 3 : 6 : 5 d^{p} 100?	--- : 14 : ---
At £ 3 : 5 d^{p} 100, what cost 66?	2 : 12 : 3 $\frac{1}{2}$
What cost 99, at £ 1 : 17 : 2 d^{p} 100?	--- : 2 : 2 : 10 $\frac{1}{2}$
At £ 2 : 15 : 4 d^{p} 100, what cost 250?	--- : 1 : 16 : 9
What cost 275, at £ 2 : 16 : 11 d^{p} 100?	--- : 6 : 18 : 4
What cost 399, at £ 5 : 17 : 3 d^{p} 100?	--- : 7 : 16 : 6 $\frac{1}{2}$
	27 : 7 : 9 $\frac{1}{2}$

V. TO find the Value of Goods sold by 112 lb. the C. weight.

The Price of 1 lb. is given to find the Value of 1 C.

R U L E.

For a Farthing account 2s. 4d. d^{p} C. for a Halfpenny 4s. 8d. for three Farthings 7s. and for every Penny 9s. 4d. d^{p} C.*Examples.*

1000. What cost 1 C. at $2\frac{1}{4}d.$ $\frac{1}{2}$ | 1001. What cost 1 C. at $7\frac{1}{2}d.$ $\frac{1}{2}$
lb. *lb.*

At 1 ϕ lb. 1 C. costs 9 : 4

At 2 — — — 18 : 8

At 1/4 - - - 2:4

$\mathcal{L}1 : 1 : - \text{Ans.}$

1001. What cost 1 C. at $7\frac{1}{4}d$, $\frac{1}{2}d$
lb.?

s. ex d.

9:4

 $3 : 5 : 4$
$$- : 7 : -$$

$\text{£ } 3 : 12 : 4$ Answer.

Examples for the Learner's Exercise.

Answer.

At $1\frac{1}{4}d.$ per lb. what is that per C. ? — £ — : 16 : 4

At 9d. ~~per~~ lb. what cost 1 C. ? — — 4 : 4 : —

What cost 1 C. at 10 $\frac{1}{2}$ d. $\frac{4}{5}$ lb. ? — — 5 : — : 4

VI. TO find the Value of Goods sold by 6 Score to the Hundred.

The Price of 1 is given, to find the Price of 1 Hundred.

R U L E.

Suppose every Penny in the Price to be so many Pounds, and for the Farthings, such a Part of a Pound as they are of a Penny, take the half thereof, and you will have the Answer.

Examples.

1002. 120 Ells, at $3\frac{1}{2}$ d. $\frac{1}{2}$ Ell.

£ 3 : 10

2

Q 1 : 15 Answer.

1004. 120 Yards, at $15\frac{1}{4}d.$ $\frac{1}{2}$
Yard?

£ 15 : 5

2

£ 7 : 12 : 6 Answer.

1093. 120 Gallons, at $19\frac{1}{4}d.$ $\frac{1}{2}$
Gallon.

£ 19 : 15

2

$\text{£ } 9 : 17 : 6$ Answer.

1005. 120 C. at 17s. 8½d. each.

12

212

£ 212 : 15

2

£ 106 : 7 : 6 Answer.

Examples

*Examples for the Learner's Exercise.**Answer.*

- What cost 120 C. at $19\frac{1}{4}d.$ q^{p} C.? — $\text{£}9 : 12 : 6$
 What cost 120 Dozen, at $3\frac{1}{4}d.$ q^{p} Dozen? — $1 : 17 : 6$
 At 1s. $11\frac{1}{4}d.$ q^{p} Yard, what cost 120 Yards? — $11 : 17 : 6$
 At 18s. $7d.$ q^{p} Dozen, what cost 120 Dozen? — $111 : 10 : —$

TO find the Price of *one*, at so much q^{p} Hundred of 6 Score.

R U L E.

Multiply the Price by 2, and take the Pounds for so many Pence, and the Shillings for such a Part of a Penny as they are of a Pound, will be the Answer.

Examples.

- | | |
|---|--|
| <p>1006. 120 Ells cost $\text{£}1 : 15$, what cost 1?
 $\text{£}1 : 15$
 $\quad\quad 2$
 <hr/> $3 : 10$
 <hr/> <i>Answer</i> $3\frac{1}{2}d.$</p> | <p>1008. 120 Yards cost $\text{£}7 : 12 : 6$, what cost 1?
 $\text{£}7 : 12 : 6$
 $\quad\quad 2$
 <hr/> $15 : 5 : —$
 <hr/> <i>Answer</i> $15\frac{1}{4}d.$</p> |
| <p>1007. 120 Gallons cost $\text{£}9 : 17 : 6$, what cost 1?
 $\text{£}9 : 17 : 6$
 $\quad\quad 2$
 <hr/> $19 : 15 : —$
 <hr/> <i>Answer</i> $19\frac{1}{2}d.$</p> | <p>1009. 120 Yards cost $\text{£}5 : 18 : 6$, what cost 1?
 $\text{£}5 : 18 : 6$
 $\quad\quad 2$
 <hr/> $11 : 17 : —$
 <hr/> <i>Answer</i> $11\frac{1}{4}d. + \frac{2}{3} \text{ of a Farthing.}$</p> |

*Examples for the Learner's Exercise.**Answer.*

- If 120 Ells cost $\text{£}9 : 12 : 6$, what cost 1 Ell? — $\text{£}— : 1 : 7\frac{1}{2}$
 If 120 Dozen cost $\text{£}1 : 17 : 6$, what cost 1 Dozen? — $— : — : 3\frac{1}{2}$
 If 120 Yards cost $\text{£}11 : 17 : 6$, what cost 1 Yard? — $— : 1 : 11\frac{1}{4}$
 If 120 Dozen cost $\text{£}111 : 10$, what cost 1 Dozen? — $— : 18 : 7$
 If 120 Yards cost $\text{£}17 : 6$, what cost 1 Yard? — $— : 2 : 10\frac{1}{2} + \frac{2}{3}$

TABLE

TABLE of aliquot Parts.

120 the Integer.

6	— 15 —	$\frac{1}{10}$
10	—	$\frac{1}{15}$
12	—	$\frac{1}{10}$
15	—	$\frac{1}{8}$
20	—	$\frac{1}{6}$
24	—	$\frac{1}{4}$
30	—	$\frac{1}{3}$
40	—	$\frac{1}{2}$
60	—	1

Also,

36	_____	$\frac{3}{10}$
45	_____	$\frac{3}{5}$
48	_____	$\frac{2}{3}$

50	— is —	$\frac{1}{10}$
70	—	$\frac{7}{10}$
72	—	$\frac{3}{5}$
75	—	$\frac{3}{4}$
80	—	$\frac{4}{5}$
84	—	$\frac{7}{10}$
90	—	$\frac{9}{10}$
96	—	$\frac{8}{5}$
100	—	$\frac{5}{5}$
105	—	$\frac{7}{5}$
108	—	$\frac{9}{5}$
110	—	$\frac{11}{5}$

Examples.

1010. 3, at £1 : 13 : 6 ~~pp~~ Hund.

$$\begin{array}{r|l} \text{L } 1 : 13 : 6 & \\ 12 \text{ --- } \frac{1}{10} & \text{---} : 3 : 4 \\ 3 \text{ --- } \frac{1}{4} & \text{---} : \text{---} : 10 \text{ Answer.} \end{array}$$

1011. 5, at £ 2 : 16 $\frac{1}{2}$ Hundred.

$$\begin{array}{r} \text{L } 2 : 16 : - \\ 20 \text{ --- } \frac{3}{8} \text{ --- } : 9 : 4 \\ 5 \text{ --- } \frac{1}{4} \text{ --- } : 2 : 4 \text{ Answer.} \end{array}$$

1012. 72, at $\mathcal{L}3 : 17 : 6$ ~~cf~~ Hun.

$$\begin{array}{r} \text{£ } 3 : 17 : 6 \\ \quad \quad \quad 3 \\ \hline 11 : 12 : 6 \\ \quad \quad \quad 5 \\ \hline \text{£ } 2 : 6 : 6 \text{ Answer.} \end{array}$$

1013. 110, at £ 4 : 13 $\frac{1}{2}$ Hun.

$$\begin{array}{r} 11 \\ \hline 51 : 3 \\ 12 \\ \hline \end{array}$$

$\mathcal{L} 4 : 5 : 3 \text{ Ans.}$

O R.

$$\begin{array}{r|l}
 120 & \text{L} \quad \text{s.} \quad \text{d.} \\
 10 & 4 : 13 : - \\
 \hline
 110 & - : 7 : 9 \quad \left. \vphantom{\begin{array}{l} 120 \\ 10 \end{array}} \right\} \text{Subtra}^2. \\
 \hline
 110 & \text{L} \quad 4 : 5 : 3 \quad \text{Answer.}
 \end{array}$$

1014. 37, at 1, 17 : 6 ~~of~~ Hun.

$$\begin{array}{r} 30 \text{ --- } \frac{1}{4} \text{ --- } 4 : 4\frac{1}{2} \\ 6 \text{ --- } \frac{1}{3} \text{ --- } 10\frac{2}{3} \\ 1 \text{ --- } \frac{1}{6} \text{ --- } 1\frac{1}{6} \\ \hline 37 \end{array} \quad \therefore 5 : 4\frac{1}{2} \text{ Answer.}$$

234 Goods sold by 6 Score to the Hundred.

PRAC.

1015. 49, at £1 : 17 : 8 $\frac{1}{2}$ Hund.
£ 1 : 17 : 8

$$\begin{array}{r} 40 \text{ --- } \frac{1}{2} \text{ ---} : 12 : 6\frac{1}{2} \\ 8 \text{ --- } \frac{1}{2} \text{ ---} : 2 : 6 \\ 1 \text{ --- } \frac{1}{2} \text{ ---} : \text{ ---} : 3\frac{1}{2} \\ \hline \end{array}$$

49 £ --- : 15 : 4 $\frac{1}{2}$ Answer.

1016. 100, at £2 : 16 : 5 $\frac{1}{2}$ Hun.

£ 2 : 16 : 5

5

14 : 2 : 1

6

£ 2 : 7 : --- Answer.

O R,

£ s. d.

20 --- $\frac{1}{2}$ --- : 16 : 5 $\frac{1}{2}$ } Subtrah.

£ 2 : 7 : --- $\frac{1}{2}$ Answer.

1017. 119, at £1 : 17 : 10 $\frac{1}{2}$ Hun.

£ 1 : 17 : 10

$$\begin{array}{r} 60 \text{ --- } \frac{1}{2} \text{ ---} : 18 : 11 \\ 30 \text{ --- } \frac{1}{2} \text{ ---} : 9 : 5\frac{1}{2} \\ 20 \text{ --- } \frac{1}{2} \text{ ---} : 6 : 3\frac{1}{2} \\ 6 \text{ --- } \frac{1}{2} \text{ ---} : 1 : 10\frac{1}{2} \\ 3 \text{ --- } \frac{1}{2} \text{ ---} : \text{ ---} : 11\frac{1}{2} \\ \hline \end{array}$$

£ 1 : 17 : 5 $\frac{1}{2}$ Answer.

O R,

£ 1 : 17 : 10

10 --- $\frac{1}{2}$ --- : 1 : 3 : 1 $\frac{1}{2}$

1 --- $\frac{1}{2}$ --- : --- : 3 $\frac{1}{2}$ } Sub. from Top Line.

£ 1 : 17 : 6 $\frac{1}{2}$ Answer.

1018. At £3 : 18 : 7 $\frac{1}{2}$ Hun-
dred, what cost 260?

£ s. d.

3 : 18 : 7

2

$$\begin{array}{r} 60 \text{ --- } \frac{1}{2} \text{ ---} : 7 : 17 : 2 \\ 1 : 19 : 3\frac{1}{2} \\ \hline \end{array}$$

£ 9 : 16 : 5 $\frac{1}{2}$ Answer.

1019. What cost 284, at 4 $\frac{1}{2}$ 13s.
7d. $\frac{1}{2}$ Hundred?

£ s. d.

4 : 13 : 7

7

32 : 15 : 1

10

84 --- 3 : 5 : 6 } Add.
Top Line $\times 2$ 9 : 7 : 2

£ 12 : 12 : 8 Answer.

O R,

£ s. d.

4 : 13 : 7

2

$$\begin{array}{r} 60 \text{ --- } \frac{1}{2} \text{ ---} : 9 : 7 : 2 \\ 24 \text{ --- } \frac{1}{2} \text{ ---} : 21 : 6 : 9\frac{1}{2} \\ \hline \end{array}$$

£ 12 : 12 : 8 Answer.

1020. At

1020. At £ 3 : 15 : 4 $\frac{1}{4}$ Hundred, what cost 9 Hundred and 99 ?

£ 3 : 15 : 4

3

11 : 6 : —

4

90 ----- 2 : 16 : 6
 9 ----- 16 ----- 5 : 7 $\frac{1}{2}$
 Top Line $\times 9$ 33 : 18 : —

£ 37 : — : 1 $\frac{1}{2}$ Ans.

O R,

£ 3 : 15 : 4

9

33 : 18 : —

2 : 16 : 6

— : 5 : 7 $\frac{1}{2}$

£ 37 : — : 1 $\frac{1}{2}$ Answer.

* Of 900.

Examples for the Learner's Exercise.

Answer.

What cost 3, at £ 2 : 17 : 2, $\frac{1}{4}$ Hundred ? — £ — : 1 : 5
 What cost 5, at £ 1 : 8 : 6, $\frac{1}{4}$ Hundred ? — — : 1 : 2 $\frac{1}{2}$
 What cost 96, at 17s. $\frac{1}{4}$ Hundred ? — — : 13 : 7
 What cost 84, at 5s. 6d. $\frac{1}{4}$ Hundred ? — — : 3 : 10
 What cost 35, at 17s. 8d. $\frac{1}{4}$ Hundred ? — — : 5 : 1 $\frac{1}{2}$
 What cost 59, at 18s. 7d. $\frac{1}{4}$ Hundred ? — — : 9 : 1 $\frac{1}{2}$
 What cost 103, at £ 1 : 7, $\frac{1}{4}$ Hundred ? — — : 1 : 3 : 2
 What cost 224, at £ 3 : 6 : 5, $\frac{1}{4}$ Hundred ? — 7 : 6 : 1 $\frac{1}{2}$
 At £ 3 : 13, $\frac{1}{4}$ Hundred, what cost 372 ? — 13 : 2 : 9 $\frac{1}{2}$
 What cost 899, at £ 5 : 16 : 3, $\frac{1}{4}$ Hundred ? — 51 : 5 : 10 $\frac{1}{2}$

VII. TO find the Value of Goods sold by the Great Grofs.

12 }
 12 Dozen. } make { 1 Dozen.
 12 Small Grofs. } { 1 Small Grofs.
 { 1 Great Grofs.

The Price of 1 Dozen being given in Pence, to find the Price of a Great Grofs.

R U L E.

Multiply the Price of 1 Dozen in Pence by 3, then divide that Product by 5, the Quotient will be the Answer in Pounds, &c.

For Proof do the contrary.

N. B. If the Price of 1 be given, the Price of 1 Small Grofs is found after the same manner.

Examples.

1021. At 9d. $\frac{3}{4}$ Dozen, what cost
1 Great Grofs?

$$\begin{array}{r}
 9d. \\
 3 \\
 \hline
 27 \\
 5 \\
 \hline
 \text{£ } 5 : 8 \text{ Answer.}
 \end{array}$$

$$\begin{array}{r}
 144 \\
 3 \\
 \hline
 43 \overline{) 12} \\
 810 \\
 \hline
 \text{£ } 5 : 8 \text{ Answer.}
 \end{array}$$

$$\begin{array}{r}
 9d. \\
 12 \\
 \hline
 9 : - \\
 12 \\
 \hline
 \text{£ } 5 : 8 : - \text{ Answer.}
 \end{array}$$

Observe $144 : = \text{£ } 7 : 4$.

$$\begin{array}{r}
 d. \quad \left. \begin{array}{l} 7 : 4 \\ 1 : 16 \end{array} \right\} \text{Subtra.} \\
 3 \quad \frac{1}{2}
 \end{array}$$

$$\begin{array}{r}
 \text{£ } 5 : 8 \text{ Answer.}
 \end{array}$$

1022. At 3s. 6d. $\frac{3}{4}$ Dozen, what
cost 1 Great Grofs?

$$\begin{array}{r}
 42d. \\
 3 \\
 \hline
 126 \\
 5 \\
 \hline
 \text{£ } 25 : 4 \text{ Answer.}
 \end{array}$$

$$\begin{array}{r}
 144 \\
 7 \\
 \hline
 100 \overline{) 8} \\
 4 \\
 \hline
 \text{£ } 25 : 4 \text{ Answer.}
 \end{array}$$

$$s. 3 : 6d.$$

$$\begin{array}{r}
 12 \\
 \hline
 2 : 2 : - \\
 12
 \end{array}$$

$$\text{£ } 25 : 4 : - \text{ Answer.}$$

$$\begin{array}{r}
 \text{£ } 7 : 4 \\
 3
 \end{array}$$

$$d. \quad \left. \begin{array}{l} 21 : 12 \\ 3 : 12 \end{array} \right\} \text{Add.}$$

$$\text{£ } 25 : 4 \text{ Answer.}$$

1023. At $4\frac{1}{2}d.$ $\frac{3}{4}$ Dozen, what
cost 1 Great Grofs?

$$\begin{array}{r}
 4\frac{1}{2}d. \\
 3 \\
 \hline
 13\frac{1}{2} \\
 5 \\
 \hline
 \text{£ } 2 : 14 \text{ Answer.}
 \end{array}$$

$$\begin{array}{r}
 4\frac{1}{2}d. \\
 12
 \end{array}$$

$$\begin{array}{r}
 4 : 6 \\
 12
 \end{array}$$

$$\text{£ } 2 : 14 : - \text{ Answer.}$$

$$144 \text{ at } 4\frac{1}{2}d.$$

$$d. \quad \left. \begin{array}{l} 2 : 8 \\ - : 6 \end{array} \right\}$$

$$\text{£ } 2 : 14 \text{ Answer.}$$

$$\begin{array}{r}
 \text{£ } 7 : 4 \\
 3
 \end{array}$$

$$\begin{array}{r}
 21 : 12 \\
 8
 \end{array}$$

$$\text{£ } 2 : 14 \text{ Answer.}$$

1024. At £5 : 8, q^{r} Great Grofs,
what is that q^{r} Dozen?

£ 5 : 8

5

27 : —

3

s. 9 Answer.

Doz. £ s. d.
12 --- $\frac{1}{12}$ 5 : 8 : —
1 --- $\frac{1}{12}$ — : — : 9 Answer.

1025. At £25 : 4, q^{r} Great Grofs,
what cost 1 Dozen?

£ 25 : 4

5

126 : —

3

42

12

s. 3 : 6 Answer.

£ s. d.
Doz. 25 : 4 : —
12 --- $\frac{1}{12}$ 2 : 2 : —
1 --- $\frac{1}{12}$ — : 3 : 6 Answer.

1026. At £2 : 14, q^{r} Great Grofs,
what is that q^{r} Dozen?

£ s.

2 : 14

5

13 : 10

3

4 : 10

Answer $4\frac{1}{2}$ d.

£ s. d.
Doz. 2 : 14 : —
12 --- $\frac{1}{12}$ — : 4 : 6
1 --- $\frac{1}{12}$ — : — : $4\frac{1}{2}$ Answer.

Examples for the Learner's Exercise.

At $2\frac{1}{2}$ d. q^{r} Dozen, what cost 1 Great Grofs? — £ 1 : 13 : —
At 3s. 7d. q^{r} Dozen, what cost 1 Great Grofs? — 25 : 16 : —
At 7d. q^{r} Dozen, what cost 1 Great Grofs? — 4 : 4 : —
At £1 : 13, q^{r} Great Grofs, what cost 1 Dozen? — : — : $2\frac{1}{2}$
At £25 : 16, q^{r} Great Grofs, what cost 1 Dozen? — : 3 : 7
At £4 : 4, q^{r} Great Grofs, what cost 1 Dozen? — : — : 7

TABLE

TABLE of aliquot Parts.

144 the Integer.

12	— 11 —	$\frac{1}{12}$
16	—	$\frac{3}{16}$
18	—	$\frac{5}{18}$
24	—	$\frac{5}{24}$
36	—	$\frac{4}{36}$
48	—	$\frac{3}{48}$
72	—	$\frac{2}{72}$
<i>Also,</i>		
32	—	$\frac{3}{32}$
60	—	$\frac{1}{60}$

64	— 15 —	$\frac{3}{64}$
80	—	$\frac{3}{80}$
84	—	$\frac{7}{84}$
96	—	$\frac{5}{96}$
108	—	$\frac{4}{108}$
112	—	$\frac{7}{112}$
120	—	$\frac{5}{120}$
128	—	$\frac{3}{128}$
132	—	$\frac{1}{132}$

Examples.

1027. 28 Dozen, at £ 3 : 17 : 3

Great Grofs?

£ 3 : 17 : 3

Doz.

24	— $\frac{1}{8}$ —	12 : 10 $\frac{1}{2}$
4	— $\frac{1}{8}$ —	2 : 1 $\frac{1}{4}$

} Add.

28 £ — : 15 : — $\frac{1}{2}$ Answer.

1028. 81 Dozen, at £ 5 : 4 : 7

Great Grofs?

£ 5 : 4 : 7

Doz.

72	— $\frac{1}{8}$ —	2 : 12 : 3 $\frac{1}{2}$
9	— $\frac{1}{8}$ —	— : 6 : 6 $\frac{1}{4}$

81 £ 2 : 18 : 9 $\frac{1}{2}$ Answer.

1029. 117 Dozen, at £ 7 : 16 : 3

Great Grofs?

£ 7 : 16 : 3

3

23 : 8 : 9

4

Doz.

108	— $\frac{1}{12}$ —	5 : 17 : 2 $\frac{1}{2}$
9	— $\frac{1}{12}$ —	— : 9 : 9

} Add.

117 £ 6 : 6 : 11 $\frac{1}{2}$ Answer.

* Of 108.

1030. 3 Great Grofs and 72 Do-

zen, at £ 3 : 18 : 6

Great Grofs?

£ 3 : 18 : 6

3

Doz.

72	— $\frac{1}{12}$ —	11 : 15 : 6
		1 : 19 : 3

} Add.

£ 13 : 14 : 9 Answer.

1031. 5 Great Grofs and 84 Do-

zen, at £ 4 : 13 : 7 $\frac{1}{2}$

Great Grofs?

£ 4 : 13 : 7 $\frac{1}{2}$

7

32 : 15 : 4 $\frac{1}{2}$

12

Doz.

84	— $\frac{1}{12}$ —	2 : 14 : 7 $\frac{1}{2}$
TopLine	$\times 5$	23 : 8 : 1 $\frac{1}{2}$

} Add.

£ 26 : 2 : 8 $\frac{1}{2}$ Answer.

O R,

£ 4 : 13 : 7 $\frac{1}{2}$

5

Doz.

72	— $\frac{1}{12}$ —	23 : 8 : 1 $\frac{1}{2}$
12	— $\frac{1}{6}$ —	2 : 6 : 9 $\frac{1}{2}$
		— : 7 : 9 $\frac{1}{2}$

84 £ 26 : 2 : 8 $\frac{1}{2}$ Answer.

1032. 7 Great

1032. 7 Great Grofs and 76 Dozen, at £ 7 : 16 : 8 $\frac{1}{2}$ Great Grofs ?

£ 7 : 16 : 8

O R,

£ 7 : 16 : 8

7

31 : 6 : 8

9

Doz.

64 -----

12 -----

Top L. $\times 7$ 3 : 9 : 7 $\frac{1}{2}$

— : 13 : —

54 : 16 : 8

£ 58 : 19 : 4 Answer.

Doz.

48 -----

24 -----

4 -----

54 : 16 : 8

2 : 12 : 2 $\frac{1}{2}$ 1 : 6 : 1 $\frac{1}{2}$

— : 4 : 4

£ 58 : 19 : 3 $\frac{1}{2}$ Answer.

Examples for the Learner's Exercise.

Answer.

What cost 56 Dozen, at £ 3 : 13 : 11, $\frac{1}{2}$ Great Grofs? £ 1 : 8 : 8 $\frac{1}{2}$ What cost 42 Dozen, at £ 4 : 7 : 9, $\frac{1}{2}$ Great Grofs? — 1 : 5 : 7What cost 90 Dozen, at £ 5 : 7 : 1, $\frac{1}{2}$ Great Grofs? — 3 : 6 : 10 $\frac{1}{2}$ What cost 5 Great Grofs and 24 Dozen, at £ 7 : 15 : 6, } 40 : 3 : 5
 $\frac{1}{2}$ Great Grofs? — — —What cost 7 Great Grofs and 60 Dozen, at £ 3 : 15 : 1, } 27 : 16 : 3
 $\frac{1}{2}$ Great Grofs? — — —What cost 9 Great Grofs and 44 Dozen, at £ 4 : 3 : 6, } 38 : 17 : 10
 $\frac{1}{2}$ Great Grofs? — — —

VIII. TO find the Value of Goods sold by the Thousand.

The Price of 1 is given, to find the Price of 1000.

R U L E.

Multiply the given Price in Pence by 50, then divide the Product by 12, the Quotient will be the Answer in Pounds, &c.

Examples.

1033. 1000, at 3 d. each.

50

Or thus,

150

12

Observe that 1000. make £ 50.

Then,

£ 12 : 10 Answer.

£ 50 is for a 1000 at 1s. each.

d.

3 — $\frac{1}{2}$

12 : 10 Answer.

O R,

1000 at 3 d. each.

d.

3 — $\frac{1}{2}$

12 : 10 Answer.

1034. 1000

1034. 1000, at $1\frac{1}{2}d.$ each

$$\begin{array}{r}
 5 \\
 \hline
 6\frac{1}{2} \\
 10 \\
 \hline
 62\frac{1}{2} \\
 12 \\
 \hline
 \end{array}$$

$\pounds 5 : 4 : 2$ *Ans.*

O R,

$$\begin{array}{r}
 \pounds 50 \\
 d. \quad \begin{array}{l} 1 \text{ --- } \frac{1}{2} \\ \frac{1}{2} \text{ --- } \frac{1}{4} \end{array} \left| \begin{array}{l} 4 : 3 : 4 \\ 1 : \text{ --- } : 10 \end{array} \right. \\
 1\frac{1}{2} \quad \pounds 5 : 4 : 2 \text{ Answer.}
 \end{array}$$

1035. 1000 Bushels, at $3s. 6\frac{1}{2}d.$ each.

$$\begin{array}{r}
 42\frac{1}{2}d. \\
 5 \\
 \hline
 212\frac{1}{2} \\
 10 \\
 \hline
 2125 \\
 12 \\
 \hline
 \end{array}$$

$\pounds 177 : 1 : 8$ *Ans.*

O R,

$$\begin{array}{r}
 \pounds 50 \\
 3 \\
 \hline
 d. \quad \begin{array}{l} 6 \text{ --- } \frac{1}{2} \\ \frac{1}{2} \text{ --- } \frac{1}{4} \end{array} \left| \begin{array}{l} 150 \\ 25 \\ 2 : 1 : 8 \end{array} \right. \\
 \pounds 177 : 1 : 8 \text{ Answer.}
 \end{array}$$

1036. 1000 Yards, at $9\frac{1}{2}d.$ each.

$$\begin{array}{r}
 9\frac{1}{2}d. \\
 5 \\
 \hline
 48\frac{1}{2} \\
 10 \\
 \hline
 487\frac{1}{2} \\
 12 \\
 \hline
 \end{array}$$

$\pounds 40 : 12 : 6$ *Answer.*

O R,

$$\begin{array}{r}
 \pounds 50 \\
 d. \quad \begin{array}{l} 6 \text{ --- } \frac{1}{2} \\ 3 \text{ --- } \frac{1}{4} \\ \frac{1}{4} \text{ --- } \frac{1}{8} \end{array} \left| \begin{array}{l} 25 : \text{ --- } : \text{ ---} \\ 12 : 10 : \text{ ---} \\ 3 : 2 : 6 \end{array} \right. \\
 9\frac{1}{2} \quad \pounds 40 : 12 : 6 \text{ Answer.}
 \end{array}$$

*Examples for the Learner's Exercise.**Answer.*What cost 1000, at $2\frac{1}{2}d.$ each? — — — $\pounds 9 : 7 : 6$ What cost 1000 Ells, at $2\frac{1}{2}d.$ each? — — — $11 : 9 : 2$ At $2s. 9d. \frac{3}{4}$ Bushel, what cost 1000 Bushels? — — — $137 : 10 : \text{ ---}$ At $10\frac{1}{2}d. \frac{3}{4}$ Yard, what cost 1000 Yards? — — — $44 : 15 : 10$ TO find the Price of *one*, at so much $\frac{3}{4}$ Thousand.

R U L E.

Multiply the Price by 12, then divide that Product by 50, then take the Pounds for so many Pence, and the Shillings for such a Part of a Penny as they are of a Pound, which will be the Answer.

Examples.

Examples.

1037. 1, at £ 5 : 4 : 2 $\frac{1}{10}$ Thou-
sand.

$$\begin{array}{r} \text{£ } 5 : 4 : 2 \\ \hline 12 \end{array}$$

$$\begin{array}{r} 50 \left\{ \begin{array}{l} 62 : 10 : - \\ \hline 5 \\ \hline 12 : 10 : - \\ \hline 10 \end{array} \right. \end{array}$$

$$\begin{array}{r} \text{£ } 1 : 5 : - \\ \hline \end{array} \text{ Answer.}$$

Answer 1 $\frac{1}{2}$ d.

O R,

$$\begin{array}{r} \text{£ } 5 : 4 : 2 \\ 100 \text{ --- } \frac{1}{10} \text{ ---} : 10 : 5 \\ 10 \text{ --- } \frac{1}{10} \text{ ---} : 1 : -\frac{1}{2} \\ 1 \text{ --- } \frac{1}{10} \text{ ---} : - : 1\frac{1}{2} \text{ Answer.} \end{array}$$

1039. 1, at £ 177 : 1 : 8 $\frac{1}{10}$
Thousand.

$$\begin{array}{r} \text{£ } 177 : 1 : 8 \\ \hline 12 \end{array}$$

$$\begin{array}{r} 50 \left\{ \begin{array}{l} 2125 : - : - \\ \hline 10 \\ \hline 212 : 10 : - \\ \hline 5 \end{array} \right. \end{array}$$

$$\begin{array}{r} 42 : 10 : - \\ \hline \end{array}$$

Answer 3s. 6 $\frac{1}{2}$ d.

O R,

$$\begin{array}{r} \text{£ } 177 : 1 : 8 \\ 100 \text{ --- } \frac{1}{10} \text{ ---} 17 : 14 : 2 \\ 10 \text{ --- } \frac{1}{10} \text{ ---} 1 : 15 : 5 \\ 1 \text{ --- } \frac{1}{10} \text{ ---} - : 3 : 6\frac{1}{2} \text{ Answer.} \end{array}$$

1038. 1, at £ 12 : 10 $\frac{1}{10}$ Thou-
sand.

$$\begin{array}{r} \text{£ } 12 : 10 \\ \hline 12 \end{array}$$

$$\begin{array}{r} 50 \left\{ \begin{array}{l} 150 : - \\ \hline 10 \\ \hline 15 : - \\ \hline 5 \end{array} \right. \end{array}$$

$$\begin{array}{r} \text{£ } 3 : - \\ \hline \end{array}$$

Answer 3 d.

O R,

$$\begin{array}{r} \text{£ } 12 : 10 : - \\ 100 \text{ --- } \frac{1}{10} \text{ ---} 1 : 5 : - \\ 10 \text{ --- } \frac{1}{10} \text{ ---} - : 2 : 6 \\ 1 \text{ --- } \frac{1}{10} \text{ ---} - : - : 3 \text{ Answer.} \end{array}$$

1040. 1, at £ 40 : 12 : 6 $\frac{1}{10}$ Thou-
sand.

$$\begin{array}{r} \text{£ } 40 : 12 : 6 \\ \hline 12 \end{array}$$

$$\begin{array}{r} 50 \left\{ \begin{array}{l} 487 : 10 : - \\ \hline 10 \\ \hline 48 : 15 : - \\ \hline 5 \end{array} \right. \end{array}$$

$$\begin{array}{r} \text{£ } 9 : 15 : - \\ \hline \end{array}$$

Answer 9 $\frac{1}{2}$ d.

O R,

$$\begin{array}{r} \text{£ } 40 : 12 : 6 \\ 100 \text{ --- } \frac{1}{10} \text{ ---} 4 : 1 : 3 \\ 10 \text{ --- } \frac{1}{10} \text{ ---} - : 8 : 1\frac{1}{2} \\ 1 \text{ --- } \frac{1}{10} \text{ ---} - : - : 9\frac{1}{2} \text{ Answer.} \end{array}$$

*Examples for the Learner's Exercise.**Answer.*

If 1000 cost £ 9 : 7 : 6, what cost 1? — £ — : — : 2½

If 1000 cost £ 11 : 9 : 2, what cost 1? — — : — : 2½

What cost 1, at £ 137 : 10 ♂ Thousand? — — : 2 : 9

What cost 1, at £ 44 : 15 : 10 ♂ Thousand? — — : — : 10½

TABLE of aliquot Parts.

1000 the Integer.

50	— is —	$\frac{1}{20}$
100	—	$\frac{1}{10}$
125	—	$\frac{1}{8}$
200	—	$\frac{1}{5}$
250	—	$\frac{1}{4}$
500	—	$\frac{1}{2}$
<i>Also,</i>		
300	—	$\frac{3}{10}$
375	—	$\frac{3}{8}$

400	— is —	$\frac{2}{5}$
600	—	$\frac{3}{5}$
625	—	$\frac{5}{8}$
700	—	$\frac{7}{10}$
750	—	$\frac{3}{4}$
800	—	$\frac{4}{5}$
875	—	$\frac{7}{8}$
900	—	$\frac{9}{10}$

Examples.

1041. 55, at 17s. 8d. ♂ Thousand.

s. d.
17 : 8

$$\begin{array}{r} 50 \text{ --- } \frac{1}{20} \text{ --- } : 10\frac{1}{2} \\ 5 \text{ --- } \frac{1}{10} \text{ --- } : 1 \end{array} \left. \vphantom{\begin{array}{r} 50 \\ 5 \end{array}} \right\} \text{Add.}$$

55 s. — : 11½ *Answer.*

1042. 156, at 19s. 6d. ♂ Thousand.

s. d.
19 : 6

$$\begin{array}{r} 100 \text{ --- } \frac{1}{10} \text{ --- } : 1 : 11\frac{1}{2} \\ 50 \text{ --- } \frac{1}{20} \text{ --- } : 11\frac{1}{2} \\ 5 \text{ --- } \frac{1}{10} \text{ --- } : 1 \\ 1 \text{ --- } \frac{1}{20} \text{ --- } : \end{array}$$

156 s. 2 : 11½ *Answer.*

1043. 33, at £ 1 : 4 : 8 ♂ Thousand.

£ 1 : 4 : 8

$$\begin{array}{r} 50 \text{ --- } \frac{1}{20} \text{ --- } : 1 : 2\frac{1}{2} \\ 25 \text{ --- } \frac{1}{10} \text{ --- } : 7\frac{1}{2} \\ 5 \text{ --- } \frac{1}{2} \text{ --- } : 1\frac{1}{4} \end{array} \left. \vphantom{\begin{array}{r} 50 \\ 25 \\ 5 \end{array}} \right\} \text{Add.}$$

$$\begin{array}{r} 30 \text{ --- } : 8\frac{1}{2} \\ 3 \text{ --- } \frac{1}{10} \text{ --- } : \frac{1}{4} \end{array} \left. \vphantom{\begin{array}{r} 30 \\ 3 \end{array}} \right\} \text{Add.}$$

33 £ — : — : 9½ *Answer.*

* Of 30.

1044. 625, at £ 2 : 17 : 6 ♂ Thousand?

£ 2 : 17 : 6

$$\begin{array}{r} 5 \\ 14 : 7 : 6 \\ 8 \end{array}$$

£ 1 : 15 : 11½ *Answer.*

1045. 1785,

TICE.

Goods sold by the Thousand. 243

1045. 1785, at 19s. 6d. $\frac{1}{4}$ Thou-
sand?

£ — : 19 : 6

7

6 : 16 : 6

10

700 ---- : 13 : 7 $\frac{1}{2}$

1000 ---- : 19 : 6

50 -- $\frac{1}{30}$: — : 11 $\frac{1}{2}$

25 -- $\frac{1}{15}$: — : 5 $\frac{1}{2}$

10 -- $\frac{1}{6}$: — : 2 $\frac{1}{2}$

£ 1 : 14 : 9 $\frac{1}{2}$ Answer.

1046. 7875, at 17s. 6d. $\frac{1}{4}$ Thou-
sand.

£ s. d.
— : 17 : 6

7

7000 ---- 6 : 3 : 6 } Add.
875 -- $\frac{1}{8}$: 15 : 5 $\frac{1}{2}$

7875 £ 6 : 18 : 11 $\frac{1}{2}$ Answer.

* Of 7000.

Examples for the Learner's Exercise.

What cost 18, at £ 2 : 7 $\frac{1}{4}$ Thousand? — Answer. £ — : — : 10 $\frac{1}{2}$

What cost 800, at 77s. $\frac{1}{4}$ Thousand? — 3 : 1 : 7

At 18s. $\frac{1}{4}$ Thousand, what cost 8375? — 13 : 19 : —

At 28s. $\frac{1}{4}$ Thousand, what cost 45? — : 1 : 3

What cost 215, at 18s. 11d. $\frac{1}{4}$ Thousand? — : 4 : — $\frac{1}{2}$

What cost 33, at £ 1 : 7 : 9 $\frac{1}{4}$ Thousand? — : 10 : 6 $\frac{1}{2}$

What cost 1785, at 48s. $\frac{1}{4}$ Thousand? — 4 : 5 : 8



P R A C T I C E.

XVIII. E X C H A N G E.

I. FRANCE.

12 Deniers	}	make	{	1 ^r Sol.
20 Sols				1 ^r Livre.
3 Livres				1 Crown.
3 <i>Guin.</i>				

Examples.

1047. What Sterling will discharge
a Bill of 579 French Crowns,
at 4s. 6d. each?

Fr. Cr.

579

<i>s.</i>	<i>d.</i>	
—	—	15 : 16 : —
6	—	14 : 9 : 6

£ 130 : 5 : 6 *Answer.**Or as Example 164.*

1048. What Sterling will discharge
a Bill of 7000 French Crowns,
at 5½d. each?

Fr. Cr.

7000

<i>s.</i>	<i>d.</i>	
—	—	1400
3	—	87 : 10 : —
½	—	14 : 11 : 8

£ 1502 : 1 : 8 *Answer.*

1049. What Sterling will discharge
a Bill of 8749 Livres, at 52½d.
per Crown?

Livres

8749 at 52½d. per Cr.

3

Liv.

Crowns 2916 : 1

<i>s.</i>	<i>d.</i>	
4	—	583 : 4 : —
3	—	36 : 9 : —
1	—	12 : 3 : —
½	—	1 : 10 : 4½
<i>Liv.</i>	1	— : 1 : 5½

£ 633 : 7 : 9½ *Answer.*

<i>s.</i>	<i>d.</i>
4	4½
3	
1	5½

1050. What

TICE.

Exchange. 245

Cr. Sol. Den.

1050. What is the Value of 1860 : 52 : 6, at $31\frac{1}{2}d.$ Crown?

Cr. Sol. Den.

1860 : 52 : 6

s.	d.	
2	6	232 : 10 : —
2	1	15 : 10 : —
4	1	3 : 17 : 6
4	1	— : 19 : 4 $\frac{1}{2}$
Sols.	Den.	
30	—	— : 1 : 4 $\frac{1}{2}$
15	—	— : — : 8
7	6	— : — : 4

£ 252 : 19 : 2 $\frac{1}{2}$ Answer.

d.
32 $\frac{1}{2}$
7
228 $\frac{1}{2}$
8
d. 28 : 2
12
s. 2 : 4 $\frac{1}{2}$

Crowns. Sols.

1051. Bourdeaux draws upon London for 3956 : 50, the Exchange at $31\frac{1}{2}d.$ Crown, what Sterling must be paid?

Crowns.

3957 at $31\frac{1}{2}d.$ each.

s.	d.	
2	6	494 : 12 : 6
1 $\frac{1}{2}$	1	24 : 14 : 7 $\frac{1}{2}$
1 $\frac{1}{2}$	1	2 : 1 : 2 $\frac{1}{2}$

Crowns. Sols.

The Value of { 3957 : — is £ 521 : 8 : 4 } Subtract,
10 — $\frac{1}{2}$ 5 $\frac{1}{2}$

The Value of 3956 : 50 is £ 521 : 7 : 10 $\frac{1}{2}$ Answer.

O R,

Crowns. Sols.

3956 : 50 at $31\frac{1}{2}d.$ Crown.

s.	d.	
2	6	494 : 10 : —
1 $\frac{1}{2}$	1	24 : 14 : 6
1 $\frac{1}{2}$	1	2 : 1 : 2 $\frac{1}{2}$
Sols		
30	—	— : 1 : 3 $\frac{1}{2}$
20	—	— : — : 10 $\frac{1}{2}$

£ 521 : 7 : 10 $\frac{1}{2}$ Answer.

1052. How

Livres. Sols. Den.

1052. How much Sterling must be paid for a Bill of 6175 : 13 : 10 at 31½*d.* Sterling $\frac{40}{100}$ Crown?

Livres. Sols. Den.

6175 : 13 : 10

3

Crowns 2058 : 1 : 13 : 10 at 2s. 7½*d.*

s. d.
2 : — : — : —
6 : — : — : —
1½ : — : — : —
— : — : — : —
— : — : — : —
— : — : — : —
— : — : — : —

Liv. Sol. Den.

1 : 13 : 10

205 : 16 : —
51 : 9 : —
12 : 17 : 3
2 : 2 : 10½
1 : 1 : 5½

— : 1 : 5½

£ 273 : 8 : —½ Answer.

Liv. Sol. Den.

31½*d.*

1 : — : —

10 : — : —

2 : — : —

1 : — : —

6 : — : —

4 : — : —

5 : 1 : 5½

Examples for the Learner's Exercise.

Answer.

How much Sterling must be paid for a French Bill of Exchange of 879 French Crowns, at 4s. 6*d.* $\frac{40}{100}$ French Crown? } £ 197 : 15 : 6

At 51½*d.* $\frac{40}{100}$ French Crown, what is the Value of 80000 Crowns? } 17083 : 6 : 8

What is the Value of 8581 Livres, at 52½*d.* $\frac{40}{100}$ Crown? } 609 : 13 : 2

What is the Value of 875 Crowns, 57 Sols, 8 Deniers, at 50½*d.* $\frac{40}{100}$ Crown? } 185 : 13 : 7

Bourdeaux draws upon London for 7851 Crowns, 2 Sols, the Exchange at 31½*d.* $\frac{40}{100}$ Crown, what Sterling must be paid? } 1026 : 8 : 7

How much Sterling must be paid for a Bill of 1781 Livres, 12 Sols, 2 Deniers, at 32½*d.* $\frac{40}{100}$ Crown? } 81 : 7 : 2

II. PORTUGAL.

400 Rees } make { 1 Cruzado.
1000 Rees } { 1 Mill Rees.

Examples.

Examples.

1053. How much Sterling will pay
a Bill of 181 Mill Rees, at
64½d. 40 Mill Ree?

181 Mill Rees.

$$\begin{array}{r} s. \quad d. \\ 5 : \text{---} \frac{1}{2} : 45 : 5 : \text{---} \\ 4 \text{---} \frac{3}{4} : 3 : \text{---} : 4 \\ \frac{1}{2} \text{---} \frac{1}{8} : \text{---} : 7 : 6\frac{1}{2} \\ \hline 5 : 4\frac{1}{2} : \text{£} 48 : 12 : 10\frac{1}{2} \text{ Ans.} \end{array}$$

1054. What is the Value of 187
Mill Rees, 680 Rees, at 6s.
2½d. Mill Ree?

187 : 680

$$\begin{array}{r} s. \quad d. \\ 6 : \text{---} \frac{1}{2} : 56 : 2 : \text{---} \\ 2 \text{---} \frac{1}{2} : 1 : 11 : 2 \\ 1 \text{---} \frac{1}{2} : \text{---} : 7 : 9\frac{1}{2} \\ 1 \text{---} \frac{1}{2} : \text{---} : 3 : 10\frac{1}{2} \\ 1 \text{---} \frac{1}{2} : \text{---} : 1 : 11\frac{1}{2} \\ \text{Rees 500} \text{---} : \text{---} : 3 : 1 \\ 125 \text{---} : \text{---} : \text{---} : 9\frac{1}{2} \\ 50 \text{---} : \text{---} : \text{---} : 3\frac{1}{2} \\ 5 \text{---} : \text{---} : \text{---} : \frac{1}{2} \\ \hline \text{£} 9 : 10 : 11\frac{1}{2} \text{ Ans.} \end{array}$$

1055. What is the Value of 3871½
Crufadoes, at 81½d. 40
Mill Ree?

Crufadoes.

3871½

400

1548 | 500 Rees.

1 | 1000

Mill Rees 1548 : 500 at 6s. 9½d.

$$\begin{array}{r} s. \quad d. \\ 6 : \text{---} \frac{1}{2} : 464 : 8 : \text{---} \\ 8 \text{---} \frac{1}{2} : 51 : 12 : \text{---} \\ 1 \text{---} \frac{1}{2} : 6 : 9 : \text{---} \\ 1 \text{---} \frac{1}{2} : 1 : 12 : 3 \\ 1 \text{---} \frac{1}{2} : \text{---} : 16 : 1\frac{1}{2} \\ \text{Rees 500} \text{---} : \text{---} : \text{---} : 4\frac{1}{2} \end{array}$$

£ 525 : -- : 9 Ans.

= 100 Rees.

Examples for the Learner's Exercise.

What is the Value of 371 Mill Rees, at 6s. 3d. 40 Mill Ree? } £ 272 : 3 : 9

At 73½d. 40 Mill Ree, what must be paid for a Bill } 55 : 7 : 3½

of 179 Mill Rees, 871 Rees? } 1200 : 6 : --

What is the Value of 8716 Crufadoes, at 82½d. 40 Mill Ree? }

III. GENOA and LEGHORN.

$$\left. \begin{array}{l} 12 \text{ Deniers} \\ 20 \text{ Sols} \\ 5 \text{ Livres} \\ 6 \text{ Livres} \end{array} \right\} \text{make} \left\{ \begin{array}{l} 1 \text{ Sol.} \\ 1 \text{ Livre.} \\ 1 \text{ Dollar at Genoa.} \\ 1 \text{ Dollar at Leghorn.} \end{array} \right.$$

Examples.

Examples.

1056. What is the Value of 731 Dollars, at $55\frac{1}{2}d.$ each.

731 Doll.

$$\begin{array}{r} s. \quad d. \\ 4 : \text{---} \frac{1}{2} \quad 146 : 4 : \text{---} \\ 6 \text{---} \frac{1}{10} \quad 18 : 5 : 6 \\ 1\frac{1}{2} \text{---} \frac{1}{4} \quad 4 : 11 : 4\frac{1}{2} \end{array}$$

£ 169 : — : $10\frac{1}{2}$ Ans.

1057. What is the Value of 879 Dollars, at $51\frac{1}{2}d.$ each?

879 Doll.

$$\begin{array}{r} s. \quad d. \\ 4 : \text{---} \frac{1}{2} \quad 175 : 16 : \text{---} \\ 3 \text{---} \frac{1}{10} \quad 10 : 19 : 9 \\ \frac{1}{4} \text{---} \frac{1}{11} \quad \text{---} : 18 : 3\frac{1}{2} \end{array}$$

£ 187 : 14 : $-\frac{1}{4}$ Ans.

1058. What is the Value of 713 Genoese Dollars, 4 Livres, 15 Sols, at $51d.$ $\frac{1}{10}$ Dollar?

Doll. Liv. Sol.

713 : 4 : 15

$$\begin{array}{r} s. \quad d. \\ 4 : \text{---} \frac{1}{2} \quad 142 : 12 : \text{---} \\ 3 \text{---} \frac{1}{10} \quad 8 : 18 : 3 \end{array}$$

$$\begin{array}{r} \text{Liv. Sol.} \\ 4 : 15 \text{---} \quad \text{---} : 4 : \text{---} \frac{1}{4} \end{array}$$

£ 151 : 14 : $3\frac{1}{2}$ Ans.

5 Livres are $= \frac{2}{3}$ of a Dollar.

s. d.

4 : 3

5 : 4

17 : —

5

Sol.

10 : —

5 : —

4 : $-\frac{1}{4}$

1059. What is the Value of 717 Genoese Dollars, 1 Sol, 11 Deniers, at $50\frac{1}{2}d.$ $\frac{1}{10}$ Dollar?

Doll. Sol. Den.

717 : 1 : 11

$$\begin{array}{r} s. \quad d. \\ 4 : \text{---} \frac{1}{2} \quad 143 : 8 : \text{---} \\ 2 \text{---} \frac{1}{10} \quad 5 : 19 : 6 \\ \frac{1}{4} \text{---} \frac{1}{11} \quad 1 : 9 : 10\frac{1}{2} \end{array}$$

Liv. Sol.

1 : — : —

10 : — : —

1 : — : $-\frac{1}{4}$

£ 150 : 18 : 8 Ans.

1060. What is the Value of 871 Leghorn Dollars, 5 Livres, 12 Sols, at $41\frac{1}{2}d.$ $\frac{1}{10}$ Dollar?

Doll. Liv. Sol.

871 : 5 : 12

$$\begin{array}{r} s. \quad d. \\ 4 : \text{---} \frac{1}{2} \quad 174 : 4 : \text{---} \\ 6 \text{---} \frac{1}{10} \quad 21 : 15 : 6 \\ 1 \text{---} \frac{1}{11} \quad 3 : 12 : 7 \\ \frac{1}{4} \text{---} \frac{1}{12} \quad \text{---} : 18 : 1\frac{1}{2} \end{array}$$

Liv. Sol.

5 : 12 : —

4 : — : $3\frac{1}{2}$

£ 200 : 14 : $6\frac{1}{2}$ Answer.

5 Livres are $= \frac{2}{3}$ of a Dollar.

s. d.

4 : $7\frac{1}{2}$

5

23 : $-\frac{1}{4}$

6

Sol.

12 : —

5 : —

4 : $3\frac{1}{2}$

1061. What

TICE.

1061. What is the Value of 917 Leghorn Dollars, 1 Livre, 19 Sols, at 57½d. Ⓕ Dollar?

	Doll.	Liv.	Sol.
917	1	19	
5 : — : — : —	229	5	—
3 : — : — : —	11	9	3
4 : 9 : — : —	217	15	9
1 : — : — : —	2	17	3½
Liv. Sol.			
1 : — : — : —	—	—	9½
10 : — : — : —	—	—	4½
5 : — : — : —	—	—	2½
4 : — : — : —	—	—	1½
	£ 220	14	7

• Of 34.

Exchange. 249

1062. Genoa draws upon London for 7858 Livres, 8 Sols, 1 Denier, what is the Sum in Sterling Money, at 56½d. Ⓕ Dollar?

	Liv.	Sol.	Den.
7858	8	1	
5			
1571	3	8	1
	Doll.	L.	S. D.
1571	3	8	1 at 56½
4 : — : — : —	314	4	—
6 : — : — : —	39	5	6
2 : — : — : —	13	1	10
1 : — : — : —	3	5	5½
L. S. D.			
3 : — : — : —	—	2	4½
1 : — : — : —	—	—	9½
4 : — : — : —	—	—	1½
4 : — : — : —	—	—	1½
1 : — : — : —	—	—	—
	£ 369	19	5½

Examples for the Learner's Exercise.

At 4s. 8½d. Ⓕ Dollar, what is the Value of 873 Dollars?	£ 206	8	6½
At 4s. 3½d. Ⓕ Dollar, what is the Value of 17381 Dollars?	3720	12	4½
What is the Value of a Bill of 871 Genoese Dollars, 4 Livres, 12 Sols, at 4s. 5d. Ⓕ Dollar?	193	10	11½
What is the Value of a Bill of 809 Genoese Dollars, 1 Livre, 17 Sols, at 4s. 7½d. Ⓕ Dollar?	186	6	5½
What is the Value of 713 Leghorn Dollars, 2 Livres, 13 Sols, at 4s. 11d. Ⓕ Dollar?	175	7	8½
At 4s. 9½d. Ⓕ Dollar, what is the Value of 871 Leghorn Dollars, 4 Livres, 17 Sols?	208	17	4½
Genoa draws upon London for 8713 Livres, 9 Sols, 7 Deniers, what is the Sum in Sterling Money, at 56½d. Ⓕ [Piece of Eight, or] Dollar?	412	1	1½

IV. VENICE.

6 Soldi }
24 Grosses } make { 1 Gros.
1 Ducat.

Examples.

1063. What is the Value of 139 Ducats, 7 Grosses, 5 Soldi, at 55½d. 49 Ducat?

	Duc.	Gr.	Sol.
139	7	5	
1. d.			
4 : —	27	16	—
6 : —	3	9	6
11 : —	—	17	4½
Gr. Sol.			
6 : —	—	1	1½
1 : —	—	—	2½
3 : —	—	—	1
2 : —	—	—	—½
	£ 32	4	4½ Ans.

1064. How much Sterling will pay a Bill of 731 Ducats, 23 Grosses, 5 Soldi, at 49½d. 49 Ducat?

	Duc.	Gr.	Sol.
731	23	5	
s. d.			
3 : 4	121	16	8
8 : —	24	7	4
1 : —	3	—	11
— : —	1	10	5½
— : —	—	15	2½
Gr. Sol.			
12 : —	—	2	—½
8 : —	—	1	4½
3 : —	—	—	6
3 : —	—	—	1
2 : —	—	—	—½
	£ 151	14	8 Ans.

Examples for the Learner's Exercise.

Answer.

What is the Value of 807 Ducats, each 4s. 3½d.—£ 174 : — : 2½

What must be paid for a Bill of Exchange of 8713 Ducats, 7 Grosses, 9 Soldi, at 4s. 10½d. 49 Ducat? } 2123 : 17 : 1½

How much must be paid for a Bill of 8139 Ducats, 23 Grosses, 5 Soldi, at 4s. 3½d. 49 Ducat? — } 1738 : 4 : 6

V. HOLLAND, FLANDERS, and GERMANY.

8 Pennings }
2 Groets, or Penny Groets, or }
16 Pennings }
6 Stivers, or 12 Penny Groets }
10 Shillings } make { 1 Groet, or Penny Groet.
20 Stivers, or 40 Penny Groets }
6 Guilders, or Florins }
12 Guilders, or Florins } 1 Stiver.
1 Shilling.
1 Pound Flemish.
1 Guilder, or Florin.
1 Pound Flemish.
1 Rix Dollar.

Example

Examples.

1065. What is the Value of 371
Guilders, at 11. 9½d. each?

Guild.

$$\begin{array}{r}
 \text{s. } d. \\
 1 : 8 \text{ --- } \frac{1}{10} \quad 30 : 18 : 4 \\
 1 \text{ --- } \frac{1}{10} \quad 1 : 10 : 11 \\
 \frac{1}{2} \text{ --- } \frac{1}{2} \quad \text{---} : 15 : 5\frac{1}{2} \\
 \hline
 \text{£ } 33 : 4 : 8\frac{1}{2} \text{ Ans.}
 \end{array}$$

1066. How much Sterling is equal
to 987 Guilders, at 11. 10½d.
each?

Guild.

$$\begin{array}{r}
 \text{s. } d. \\
 1 : 8 \text{ --- } \frac{1}{10} \quad 82 : 5 : \text{---} \\
 2 \text{ --- } \frac{1}{10} \quad 8 : 4 : 6 \\
 \frac{1}{2} \text{ --- } \frac{1}{2} \quad 1 : \text{---} : 6\frac{1}{2} \\
 \hline
 \text{£ } 91 : 10 : \text{---} \frac{1}{2} \text{ Ans.}
 \end{array}$$

1067. How many Guilders are
equal to £8000 Sterling, at
311. 6d. Flemish ₤ £ Ster-
ling?

$$\begin{array}{r}
 \text{£} \\
 10 : \text{---} \text{ --- } \frac{1}{10} \quad 8000 \\
 1 : \text{---} \text{ --- } \frac{1}{10} \quad 4000 \\
 6 \text{ --- } \frac{1}{2} \quad 400 \\
 \quad \quad 200 \\
 \hline
 12600 \text{ £ Flemish.} \\
 6
 \end{array}$$

Answer 75600 Guilders.

1068. How many Guilders are
equal to £37 : 15 : 6 Sterling,
at 351. 6d. Flemish ₤ £ Ster-
ling?

$$\begin{array}{r}
 \text{s. } d. \\
 14 : \text{---} \text{ --- } \frac{1}{10} \quad 37 \text{ £} \\
 1 : \text{---} \text{ --- } \frac{1}{10} \quad 25 : 18 : \text{---} \\
 6 \text{ --- } \frac{1}{2} \quad 1 : 17 : \text{---} \\
 10 : \text{---} \text{ ---} \quad \text{---} : 18 : 6 \\
 5 : \text{---} \text{ ---} \quad \text{---} : 17 : 9 \\
 6 \text{ --- } \frac{1}{10} \quad \text{---} : 8 : 10\frac{1}{2} \\
 \quad \quad \text{---} : \text{---} : 10\frac{1}{2}
 \end{array}$$

£ Flemish 67 : 1 : \text{---}

Guilders 402 : 6 Stivers.

1069. How many Guilders are
equal to £731 Sterling, at
351. 8d. Flemish ₤ £ Ster-
ling?

$$\begin{array}{r}
 731 \text{ £} \\
 17 \\
 \hline
 5117 \\
 731 \\
 \hline
 \text{s. } d. \\
 34 : \text{---} \text{ ---} \quad 1242 : 14 \text{ Use of Cash} \\
 1 : 8 \text{ --- } \frac{1}{10} \quad 60 : 18 : 4 \text{ [IV]}
 \end{array}$$

35 : 8 £ 1303 : 12 : 4

6 St. Pen.
Guilders 7821 : 14 : \text{---}

$$\begin{array}{r}
 \text{s. } d. \\
 12 : 4 \\
 12 \\
 \hline
 148 \text{ Penny Grats.} \\
 2
 \end{array}$$

7¼ Stivers.
30

Guilders 4 : 14 Stivers.

Exchange.

1070. Drawn £ 300 upon *Amsterdam*, at 33s. 8d. Flemish ⷡ £ Sterling, what Sum must be paid at *Amsterdam*?

$$\begin{array}{r} \text{£} \quad \text{s.} \quad \text{d.} \\ 300 \text{ at } 33 : 8 \\ 17 \end{array}$$

Ans. $\left[\begin{array}{c} 5100 \text{ See Use of Case IV.} \\ 5 \end{array} \right]$

£ Gros 505
6 Florins make 1 £ Gros.

Answer 3030 Florins.

1071. Drawn £ 395 Sterling upon *Rotterdam*, at 34s. 8d. Flemish ⷡ £ Sterling, what Sum of Money must be paid at *Rotterdam*?

$$\begin{array}{r} \text{£} \\ \text{s.} \quad \text{d.} \\ 395 \\ 15 : 7 : 10 \\ 8 : 20 \\ 276 : 10 : - \\ 13 : 3 : 4 \\ 684 : 13 : 4 \\ 6 \end{array}$$

Answer 4108 Guilders.

$$\begin{array}{r} \text{s.} \quad \text{d.} \\ 13 : 4 \\ 6 \end{array}$$

$$\begin{array}{r} 80 \\ 210 \end{array}$$

4 Guilders.

PRAC.

1072. What Sum must be paid at *Amsterdam* for a Bill of 2497. 6s. 5d. Sterling, at 34s. 6d. Flemish ⷡ £ Sterling?

$$\begin{array}{r} \text{s.} \quad \text{d.} \\ 249 \text{ £} \\ 14 : 7 : 174 : 6 : - \\ 6 : 20 : 6 : 4 : 6 \\ 5 : 4 : 8 : 7 \\ 5 : 1 : 8 \\ 1 : 3 : 1 : 8 \end{array}$$

$$\text{£ } 430 : 1 : 6 \frac{1}{2}$$

$$6$$

St. Pen.
Guilders 2580 : 9 : 4

$$* 1. 1 : 6 d.$$

$$6$$

9 Stivers.

Since 8 Pennings make 1 Groet, or Penny Gros, $\frac{1}{2}$ a Penny must consequently be 4 Pennings, and so of the rest of the Examples.

1073. For what number of Guilders may I draw my Bill on *Amsterdam*, if I pay in *London* 2341. 13s. Sterling, at 33s. 7½d. Flemish ⷡ £ Sterling?

$$\begin{array}{r} \text{s.} \quad \text{d.} \\ 234 \text{ £} \\ 10 : 1 : 117 : - : - \\ 3 : 4 : 39 : - : - \\ 3 : 10 : 2 : 18 : 6 \\ 1 : 1 : - : 4 : 10 \frac{1}{2} \\ 10 : - : - : 16 : 9 \frac{1}{2} \\ 2 : - : - : 3 : 4 \frac{1}{2} \\ 1 : - : - : 1 : 8 \end{array}$$

$$\text{£ } 394 : 5 : 2 \frac{1}{2}$$

$$6$$

St. Pen.
Guilders 2365 : 11 : 2

$$* 1. 5 : 2 d.$$

$$6$$

34 Stivers.

$$2 \frac{1}{2}$$

Guilders 1 : 11 Stivers.

When the Exchange is at par [i. e. 33s. 4d. Flemish q^{r} £ Sterling] you may with ease reduce the Sterling Money into Guilders. Thus,

Because every Guilder is worth 2 Shillings [when the Exchange is at par] reduce the Sterling into Two Shillings's, reckoning them so many Guilders, if there be any odd Money, for 1 Shilling reckon 10 Stivers, for 6 Pence reckon 5 Stivers, &c.

And the contrary for reducing Guilders, &c. into Sterling.

Examples.

1074. Drawn £ 706 : 18 : 6 upon Rotterdam, at 33s. 4d. Flemish q^{r} £ Sterling, what number of Guilders will discharge the Bill?

$$\text{£ } 706 : 18 : 6$$

10

— St.

Guilders 7069 : 5

1075. Change £ 705 : 19 : 11 into Guilders, Exchange at par?

£

705 : 18

10

— for £ 705 : 18 : —

— : 10 St. — : 1 : —

— : 5 — : — : 6

— : 2 : 8P. — : — : 3

— : 1 : 10 — : — : 2

7059 : 19 : 2 for 705 : 19 : 11

1076. Change £ 309 : 17 : 9 into Guilders, Exchange at par?

£

309 : 16

10

— for £ 309 : 16 : —

— : 10 St. — : 1 : —

— : 5 — : — : 6

— : 2 : 8P. — : — : 3

3098 : 17 : 8 for 309 : 17 : 9

1077. What Sterling Money is there in 7069 Guilders, 10 Stivers, Exchange at par?

Guild. St. comes to £

7069 : — at 2s. 706 : 1848/100 Cash IV.

— : 10 — : 1

— : — — : —

7069 : 10

706 : 19

1078. How much Sterling will pay a Bill of 3098 Guilders, 17 Stivers, 8 Pennings, Exchange at par?

Guild. St. Pen.

3098 : — : — at 2s. £ 309 : 16 : —

— : 10 : — — : 1 : —

— : 5 : — — : — : 6

— : 2 : 8 — : — : 3

3098 : 17 : 8

309 : 17 : 9

1079. What Sterling Money is there in 9081 Guilders, 15 Stivers, 15 Pennings, Exchange at par?

Guild. St. Pen.

9081 : — : — at 2s. £ 908 : 1 : —

— : 10 : — — : 1 : —

— : 5 : — — : — : 6

— : 2 : 8 — : — : 3

— : 1 : 4 — : — : 1

— : — : 1 — : — : —

— : — : 1 — : — : —

9081 : 18 : 15

908 : 1 : 10

Examples

*Examples for the Learner's Exercise.**Answer.*

What is the Value of 807 Guilders, at 1*s.* 7½*d.* ¼*d.* } £ 66 : 8 : 2½
 Guilder? ————

What is the Value of 1757 Guilders, each 1*s.* 8½*d.*? 150 : 1 : 6½

How many Guilders are equal to £ 500 Sterling, at 31*s.* 8*d.* } Guild.
 Flemish ¼*d.* £ Sterling? ———— } 4750

How many Guilders will pay for a Bill of Exchange of 57*l.* } Guild. St.
 7*s.* 9*d.* Sterling, at 35*s.* 6*d.* ¼*d.* £ Sterling? ———— } 615 : 6

How many Guilders will pay for a Bill of Exchange of £ 5000 } Guild.
 Sterling, at 35*s.* 6*d.* Flemish ¼*d.* £ Sterling? ———— } 53250

How many Guilders are equal to £ 871 : 17 : 8, at } Guild. St. Pen.
 33*s.* 7*d.* Flemish ¼*d.* £ Sterling? ———— } 8784 : 4 : 6

Drawn £ 159 Sterling at *Amsterdam*, at 33*s.* 8*d.* Flemish ¼*d.* } Guild. St.
 £ Sterling, what Sum must be paid at *Amsterdam*? ———— } 1603 : 6

Drawn £ 907 Sterling upon *Rotterdam*, at 34*s.* 8*d.* Flemish ¼*d.* } Guild. St.
 ¼*d.* £ Sterling, what Sum of Money must be paid at } 9432 : 6
Rotterdam? ————

What Sum must be paid at *Amsterdam* for a Bill of 479*l.* } Guild. St.
 15*s.* 6*d.* Sterling, at 34*s.* 9*d.* Flemish ¼*d.* £ Sterling? } 5001 : 13

What number of Guilders may I draw on *Antwerp*, if } Guild. St. Pen.
 I pay in *London* £ 287 : 14 : 6 Sterling, at 33*s.* 7½*d.* } 2900 : 16 : 6
 Flemish ¼*d.* £ Sterling? ————

Drawn £ 796 : 16 : 6 upon *Rotterdam*, at 33*s.* 4*d.* Flemish ¼*d.* } Guild. St.
 ¼*d.* £ Sterling, what number of Guilders will discharge } 7968 : 5
 the Bill? ————

Change £ 907 : 15 : 3. into Guilders, Exchange at } Guild. St. Pen.
 33*s.* 4*d.* Flemish ¼*d.* £ Sterling? ———— } 9077 : 12 : 8

Change £ 3 : 19 : 11½ into Guilders, Exchange at 33*s.* } Guild. St. Pen.
 4*d.* Flemish ¼*d.* £ Sterling? ———— } 39 : 19 : 10

What Sterling Money is there in 907 Guilders, 5 St.
 vers, Exchange at 33*s.* 4*d.* ¼*d.* £ Sterling? ———— } £ 90 : 14 : 6

What Sterling Money is there in 8713 Guilders, 16
 Stivers, 4 Pennings, Exchange at 33*s.* 4*d.* ¼*d.* £ } 871 : 7 : 7½
 Sterling? ————

What Sterling Money is there in 1997 Guilders, 17
 Stivers, 4 Pennings, Exchange at 33*s.* 4*d.* ¼*d.* £ } 199 : 15 : 8½
 Sterling? ————



P R A C T I C E.

XIX. DUODECIMALS,

OR *squaring of Dimensions*, are also wrought by Practice as well as by cross Multiplication, and many times with more Certainty to the young Beginner.

It will be needless to give a Table of aliquot Parts, therefore shall leave the Learner to exercise his Abilities in the following Examples, with this Remark, that a Foot is divided into 12 Inches, an Inch into 12 Parts, a Part into 12 Seconds, a Second into 12 Thirds, a Third into 12 Fourths, &c.

Examples.

1080. Multiply 12 Feet by 6 Feet.

$$\begin{array}{r} 12 \text{ Feet.} \\ 6 \\ \hline \text{Feet } 72 \text{ Answer.} \end{array}$$

1081. Multiply 103 Feet by 70.

$$\begin{array}{r} 103 \text{ Feet.} \\ 70 \\ \hline \text{Feet } 7210 \text{ Answer.} \end{array}$$

1082. Multiply 5 Feet 3 Inches by 4 Feet.

$$\begin{array}{r} \text{Feet } 5 : 3 \text{ Inches.} \\ 4 \\ \hline \text{Feet } 21 : - \text{ Answer.} \end{array}$$

3 Inches \times 4 = 12 Inches = 1 Foot, carry 1 Foot to the Product of 5 Feet \times 4 the Sum 21 Feet will be the Answer.

1083. Multiply 15 Feet 3 Inches by 7 Feet.

$$\begin{array}{r} \text{Feet } 15 : 3 \text{ Inches.} \\ 7 \\ \hline \text{Feet } 106 : 9 \text{ Answer.} \end{array}$$

1084. Multiply 37 Feet 9 Inches by 7 Inches.

$$\begin{array}{r} \text{Feet. In.} \\ 37 : 9 \\ \hline \text{In.} \\ 6 \text{ ---} \left| \begin{array}{l} 18 : 10 : 6 \\ 3 : 1 : 9 \end{array} \right. \text{ P.} \\ 1 \text{ ---} \left| \begin{array}{l} 18 : 10 : 6 \\ 3 : 1 : 9 \end{array} \right. \\ \hline \text{Feet } 22 : - : 3 \text{ Answer.} \end{array}$$

O R,
7 Inches are $\frac{7}{12}$ of a Foot.

$$\begin{array}{r} \text{Feet. In.} \\ 37 : 9 \\ \hline 264 : 3 \\ 12 \end{array}$$

Feet 22 : - : 3 Answer.

1085. Multiply 7 Feet 6 Inches by 8 Feet 6 Inches.

$$\begin{array}{r} \text{Feet. In.} \\ 7 : 6 \\ 8 \\ \hline \text{In.} \\ 6 \text{ ---} \left| \begin{array}{l} 60 : - \\ 3 : 9 \end{array} \right. \\ \hline \text{Feet } 63 : 9 \text{ Answer.} \end{array}$$

1086. Mul-

156 *Duodecimals.*

1086. Multiply 17 Feet 10 Inches
by 13 Feet 10 Inches.

Feet. In.

17 : 10

12

In. 214 : —
17 : 10
6 --- 8 : 11 P.
4 --- 5 : 11 : 4

F. 246 : 8 : 4 Answer.

1087. Multiply 5 Feet 3 Inches
by 4 Feet 2 Inches.

Feet. In.

5 : 3

4

In. 21 : —
2 --- : 10 : 6

F. 21 : 10 : 6 Answer.

1088. Multiply 171 Feet 7 Inches
by 7 Feet 11 Inches.

Feet. In.

171 : 7

7

In. 1201 : 1 P.
6 --- 85 : 9 : 6
4 --- 57 : 2 : 7
1 --- 14 : 3 : 7

F. 1358 : 4 : 5 Answer.

PRAC.

1089. Multiply 179 Feet 3 Inches
by 38 Feet 10 Inches.

Feet. In.

179 : 3

6

1075 : 6

6

Top Line $\times 2$ 6453 : —
Inches 6 --- 358 : 6 P.
4 --- 89 : 7 : 6
59 : 9 : —

F. 6960 : 10 : 6 Answer.

1090. Multiply 11 Inches 9 Parts
by 7 Inches 8 Parts.

In. Par.

11 : 9

I. P. 6 : —
1 : 6
2 : —
S. 5 : 10 : 6
1 : 5 : 7 : 6
— : 1 : 11 : 6
7 : 6 : 1 : —

Answer $7\frac{1}{2}$ Inches.

1091. What is the Square of 2
Feet, 2 Inches, 3 Parts, i. e.
what is the Product of 2 Feet,
2 Inches, 3 Parts, multiplied
by 2 Feet, 2 Inches, 3 Parts.

Feet. In. Par.

2 : 2 : 3

2

In. Par. 4 : 4 : 6 S.
2 : — : 4 : 4 : 6 T.
3 : — : 6 : 6 : 9

Answer F. 4 : 9 : 5 : — : 9

1092. What

TICE

1092. What cost the Glazing of a Sash Frame consisting of 16 Squares, each 1 Foot, — Inches, 9 Parts, by 10 Inches, 6 Parts, at $16\frac{1}{2}d.$ $\frac{1}{4}$ Foot?

Foot. In. Par.
1 : — : 9

I. P.	S.
6 : — : — : 6 : 4 : 6	
4 : — : — : 4 : 3 : —	T.
6 : — : — : 6 : 4 : 6	

In 1 Square — : 11 : 1 : 10 : 6
4

3 : 8 : 7 : 6 : —
4

Feet in
16 Squares 14 : 10 : 6 : — : —

Feet. In. s. d.
14 : 10 at 1 : $4\frac{1}{2}$
7

9 : $9\frac{1}{2}$
2

In.	
6 : — : — : 19 : $6\frac{1}{2}$	
4 : — : — : 8 : $\frac{1}{2}$	
4 : — : — : 5 : $\frac{1}{2}$	

£ 1 : — : $8\frac{1}{2}$ Answer.

Duodecimals. 257

1093. What will the Ceiling of a Room come to, whose Length is 73 Feet, 5 Inches, and Width 13 Feet, 9 Inches, at $3s.$ $2\frac{1}{2}d.$ $\frac{1}{4}$ Square Yard?

N. B. 9 Square Feet make 1 Square Yard.

Feet. In.

73 : 5
12

881 : —

In.	
6 : — : — : 73 : 5	
3 : — : — : 36 : 8 : 6	
3 : — : — : 18 : 4 : 3	

1009

9

$112\frac{1}{2}$ Yards.

Yards. s. d.

$112\frac{1}{2}$ at $3s.$ $2\frac{1}{2}d.$ $\frac{1}{4}$ Yd.

s. d.	
2 : — : — : 11 : 4 : —	
1 : — : — : 5 : 12 : —	
2 : — : — : — : 18 : 8	
$\frac{1}{2}$: — : — : — : 2 : 4	
Yd. $\frac{1}{2}$: — : — : — : — : $4\frac{1}{2}$	

£ 17 : 17 : $4\frac{1}{2}$ Answer.

If there should happen to be a Remainder greater than in this Example as $\frac{2}{3}$, $\frac{1}{3}$, $\frac{1}{4}$, &c. work as in Example 629.

Paviors, Plasterers, Painters, Joiners Work, Paper Hangings, &c. may be computed after the same manner therefore I shall not work any more Examples, but refer the Learner to the following List.

Examples for the Learner's Exercise.

Answer.

Multiply 8 Feet by 9 Feet.

Feet. 72

Multiply 107 Feet by 87 Feet.

Feet. 9309

Feet. In. Feet. In.

Multiply 8 : 9 by 8 : 9.

Feet. In. Par.

76 : 8 : 2

L 1

Mult

		<i>Answer.</i>	
<i>Feet. In.</i>	<i>Feet. In.</i>	<i>Feet. In. Par.</i>	
Multiply 31 : 8 by 13 : 7.	— —	430 : 1 : 8	
		<i>Feet. In. Par.</i>	
What is the Square of 7 : 9?	— —	60 : — : 9	
		<i>Feet. In.</i>	
What is the Product of 871 : 8 by 8 : 9?	— —	7627 : 1	
<i>Feet. In.</i>	<i>Feet. In.</i>	<i>Feet. In. Par.</i>	
Multiply 87 : 11 by 1 : 7.	— —	139 : 2 : 5	
<i>In. Par.</i>	<i>Foot. In.</i>	<i>Foot. In. Par. S.</i>	
Multiply 10 : 7 by 1 : 7.	— —	1 : 4 : 9 : 1	
		<i>Feet. In. Par. S.</i>	
What is the Square of 3 : 7 : 5?	— —	13 : 1 : 1 : — : 1	
<i>In. Par.</i>	<i>In. Par.</i>	<i>Feet. In. Par. S.</i>	
Multiply 10 : 7 by 8 : 7.	— —	7 : 6 : 10 : 1	
What does the Glazing of 2 Sash Frames come to, each Sash Frame containing 8 Squares, and each Square is 1 Foot, 1 Inch, by 11 Inches, 6 Parts, at 18d. $\frac{1}{2}$ Foot?		£ 1 : 4 : 10 $\frac{1}{2}$	
What will the Cieling of a Room come to, whose Dimensions are 87 Feet, 3 Inches, by 14 Foot, 7 Inches, at 3s. 1d. $\frac{1}{2}$ Yard?		21 : 15 : 9 $\frac{1}{2}$	
What must be paid for Paving a Court Yard, whose Dimensions are 57 Feet, 8 Inches, by 41 Feet, 9 Inches, at 1s. 8d. $\frac{1}{2}$ Yard?		22 : 5 : 8 $\frac{1}{2}$	
A Room is 97 Feet, 7 Inches about, and 10 Feet, 7 Inches high, taking in the Cornice and Mouldings, what must be paid for Painting the same, at 2s. 2d. $\frac{1}{2}$ Yard?		12 : 8 : 8	
A Room is 23 Feet, 5 Inches, by 17 Feet, 7 Inches, what will the Plaistering of the Ceiling come to, at 10d. $\frac{1}{2}$ Yard?		1 : 18 : — $\frac{1}{2}$	
What will the Wainscoting a Room come to, at 6s. $\frac{1}{2}$ Square Yard, supposing the Height of the Room is 13 Feet, 7 Inches, and the Compass 78 Feet, 3 Inches?		35 : 8 : —	
What will the Indian Paper Hangings of a Parlour come to, whose Dimensions for the Hangings are 137 Feet, 8 Inches, by 11 Feet, 7 Inches, at 5s. $\frac{1}{2}$ Square Yard?		41 : 3 : 4	

Measuring by the Square of 100 Feet.

TABLE of aliquot Parts.

100 Square Feet the Integer.

Feet. Inch.

$$8 : 4 \text{ --- is --- } \frac{1}{12}$$

$$10 : \text{ --- } \text{ --- } \frac{1}{10}$$

$$12 : 6 \text{ --- } \frac{1}{8}$$

$$16 : 8 \text{ --- } \frac{1}{6}$$

Feet. Inch.

$$20 : \text{ --- } \text{ --- is --- } \frac{1}{5}$$

$$25 : \text{ --- } \text{ --- } \frac{1}{4}$$

$$33 : 4 \text{ --- } \frac{1}{3}$$

$$50 : \text{ --- } \text{ --- } \frac{1}{2}$$

The following Examples are so very easy that I shall not give Examples to every particular aliquot Part, but proceed to their Use.

Examples.

1094. What cost 7 Squares, 16 Feet, 8 Inches of Flooring, at £ 6 : 10 $\frac{1}{2}$ Square?

$$£ 6 : 10$$

7

$$\begin{array}{r} \text{F. I.} \\ 16 : 8 \text{ --- } \frac{1}{2} \end{array} \left\{ \begin{array}{l} 45 : 10 : \text{ --- } \\ 1 : 1 : 8 \end{array} \right\} \text{Add.}$$

$$£ 46 : 11 : 8 \text{ Answer.}$$

1095. What cost 19 Squares, 33 Feet, 4 Inches of Tiling, at 10s. 9d. $\frac{1}{2}$ Square?

s. d.

$$10 : 9$$

 $\frac{1}{2}$

$$3 : 4 : 6$$

3

F. I.

$$33 : 4 \text{ --- } \frac{1}{2}$$

$$9 : 13 : 6$$

$$\text{---} : 10 : 9$$

$$\text{---} : 3 : 7$$

$$£ 10 : 7 : 10 \text{ Answer.}$$

1096. At £ 6 : 7 : 8 $\frac{1}{2}$ Square of Flooring, what cost 1 Foot?

$$£ 6 : 7 : 8$$

20

$$s. 127$$

12

$$d. 332$$

4

$$\text{far. 128}$$

Answer 1s. 3 $\frac{1}{2}$ d.

1097. What cost 1 Square of Tiling, at 2 $\frac{1}{2}$ d. $\frac{1}{2}$ Foot, i. e. what cost 100 Feet, at 2 $\frac{1}{2}$ d. $\frac{1}{2}$ Foot?

100 Feet, at 2 $\frac{1}{2}$ d. each.

d.

2

 $\frac{1}{2}$ $\frac{1}{2}$

$$16 : 8$$

$$2 : 1$$

$$s. 18 : 9 \text{ Answer.}$$

2 $\frac{1}{2}$ d.

10

$$1 : 10 \frac{1}{2}$$

10

$$s. 18 : 9 \text{ Answer.}$$

$$9 \times 5 = 45 \text{ Fivepences.}$$

$$45 \times 5 = 225 \text{ d.}$$

$$225 \div 12 = 18 \text{ s. 9d.}$$

1098. What

L 12

1098. What will the Flooring of a Room cost, whose Dimensions are 20 Feet, 7 Inches, by 17 Feet, 9 Inches, at £6 : 7 : 9 $\frac{1}{2}$ Square?

$$\begin{array}{r} \text{Feet. In. Feet. In.} \\ 17 : 9 \text{ by } 20 : 7 \\ \hline 5 \end{array}$$

$$\begin{array}{r} 88 : 9 \\ 4 \end{array}$$

$$\begin{array}{r} \text{In.} \\ 6 \text{ --- } \frac{1}{8} \\ 1 \text{ --- } \frac{1}{8} \end{array} \begin{array}{r} 375 : - \\ 8 : 10 : 6 \\ 1 : 5 : 9 \end{array}$$

$$100 \ 3165$$

$$\begin{array}{r} \text{Sq. Ft. £ s. d.} \\ 3 : 65 \text{ at } 6 : 7 : 9 \frac{1}{2} \text{ Square.} \\ \hline 3 \end{array}$$

$$\begin{array}{r} \text{Feet.} \\ 50 \text{ --- } \frac{1}{2} \\ 10 \text{ --- } \frac{1}{2} \\ 5 \text{ --- } \frac{1}{2} \end{array} \begin{array}{r} 19 : 3 : 3 \\ 3 : 3 : 10 \\ - : 12 : 9 \\ - : 6 : 4 \end{array}$$

$$£ 23 : 6 : 3 \frac{1}{2} \text{ Answer.}$$

1099. What will the Partitioning of several Rooms come to, whose Dimensions are 179 Feet, 7 Inches, by 10 Feet, 10 Inches, at £11 : 8 $\frac{1}{2}$ Square?

$$\begin{array}{r} \text{Feet. In. Feet. In.} \\ 179 : 7 \text{ by } 10 : 10 \\ \hline 10 \end{array}$$

$$\begin{array}{r} \text{In.} \\ 10 \text{ --- } \frac{1}{8} \end{array} \begin{array}{r} 1795 : 10 \\ 149 : 7 : 6 \end{array}$$

$$19145$$

• Of 10 Feet.

$$\begin{array}{r} \text{Sq. Ft. £ s. d.} \\ 19 : 45 \text{ at } 11 : 8 \frac{1}{2} \text{ Square.} \\ \hline 3 \end{array}$$

$$\begin{array}{r} 34 : 4 \\ 6 \end{array}$$

$$\begin{array}{r} \text{Feet.} \\ 25 \text{ --- } \frac{1}{2} \\ 20 \text{ --- } \frac{1}{2} \end{array} \begin{array}{r} 205 : 4 \\ 111 : 8 \\ 2 : 17 \\ 2 : 5 : 7 \end{array}$$

$$£ 221 : 14 : 7 \text{ Answer.}$$

Examples for the Learner's Exercise.

- What cost 8 Squares, 16 Feet, 8 Inches of Flooring, } $\frac{1}{2}$ Answer.
at £7 $\frac{1}{2}$ Square? _____ } £ 58 : 6 : 8
- At 16s. 8d. $\frac{1}{2}$ Square of Tiling, what cost 18 }
Squares, 33 Feet, 4 Inches? _____ } 15 : 11 : 1
- What cost 1 Foot of Flooring, at £7 : 5 $\frac{1}{2}$ Square? _____ : 1 : 5 $\frac{1}{2}$
- What cost 1 Square of Tiling, at 2s. 6d. $\frac{1}{2}$ Foot? _____ : - : 10
- What will the Flooring a Room come to, whose Dimensions are 47 Feet, 7 Inches, by 19 Feet, 8 Inches, at £5 : 18 : 6 $\frac{1}{2}$ Square? _____ } 55 : 8 : 4
- What will the Partitioning a Room come to, whose Dimensions are 107 Feet, 3 Inches, by 11 Feet, 7 Inches, at £10 : 7 : 9 $\frac{1}{2}$ Square? _____ } 1433 : 9 : 6



PRACTICE.

XX. SOLID MEASURE.

RULE.

Multiply the Length by the Breadth, then multiply *that Product* by the Height, Depth, or Thickness, the *last Product* will be the Solidity.

Examples.

1100. What is the Solidity of a Stone whose Length is 8 Feet, Breadth 4 Feet, and Depth 5 Feet?

$$8 \times 4 \times 5 = 160 \text{ Answer.}$$

1101. How many Cubic Feet are there in a Piece of Timber, whose Length is 2 Feet, 2 Inches, Breadth 2 Feet, and 3 Feet Thick?

Ft. In.

2 : 2

2

4 : 4

3

Feet 13 : — Answer.

1102. A Box is 2 Feet, 3 Inches long, 3 Feet, 4 Inches broad, and 4 Feet deep, how many Cubic Feet?

Feet. In.

2 : 3

3

In. 6 : 9

4 : 3

7 : 6

4

Feet 30 : — Answer.

1103. How many Cubic Feet does a Bale contain, whose Length is 2 Feet, 3 Inches, Breadth 2 Feet, 2 Inches, and Depth 3 Feet, 2 Inches?

Feet. 2 : 3 In.

2

In. 4 : 6
2 : 1 : 4 : 6 } *Add.*

4 : 10 : 6

3

In. 14 : 7 : 6
2 : 1 : 9 : 9

Feet 15 : 5 : 3 Ans.

1104. A Piece of Timber is 14 Feet, 2 Inches long, 4 Feet, 3 Inches broad, and 8 Feet, 3 Inches deep, how many Solid Feet?

Feet. 14 : 2 In.

4

In. 56 : 8
3 : 1 : 3 : 6 : 6

60 : 2 : 6

8

In. 481 : 8 : —
3 : 1 : 15 : — : 7 : 6

Answer. Feet 496 : 8 : 7 : 6

262 *Solid Measure.*

PRAC-

1105. I have 4 Bales, each of them have the following Dimensions, viz. 5 Feet, 9 Inches long, 4 Feet, 7 Inches broad, and 5 Feet, 11 Inches deep, what must I pay for the Tonnage at 30s. 4d. Ton? N. B. 40 Cubic Feet = 1 Ton.

Feet. In.

4 : 7
6

In. $\left| \begin{array}{r} 27 : 6 : - \\ 3 : 1 : 9 \end{array} \right\} \text{Subtract.}$

26 : 4 : 3
6

In. $\left| \begin{array}{r} 158 : 1 : 6 \\ 2 : 2 : 4 : 3 \end{array} \right\} \text{Subtract.}$

155 : 11 : 1 : 9
4 Bales.

62 | 3
4 | 0

15 : 23 Feet, — at — 30s.

10 : $\frac{1}{2}$ 7 : 10 Ft. $\left| \begin{array}{r} 20 - \frac{1}{2} 15 : - \\ 2 - \frac{1}{10} 1 : 6 \\ 1 - \frac{1}{2} - : 9 \end{array} \right.$

£ 27 : 7 : 3

5. 17 : 3

Examples for the Learner's Exercise.

Answer.

What is the Solidity of a Stone, whose Length is 5 Feet, 2 Inches, Breadth 6 Feet, and Height 9 Feet? } Feet 279

How many Cubic Feet are there in a Piece of Timber, whose Length is 11 Feet, 7 Inches, Breadth 2 Feet, 3 Inches, and Height 1 Foot, 11 Inches? } Feet. In. Par. S. 49 : 11 : 5 : 3

A Box is 2 Feet, 5 Inches long, 3 Feet, 7 Inches broad, and 1 Foot, 11 Inches deep, how many Cubic Feet? } 16 : 7 : 2 : 1

How many Cubic Feet does a Bale contain, whose Length is 4 Feet, 7 Inches, Breadth and Height 5 Feet, 1 Inch? } 118 : 5 : 2 : 7

A Piece of Timber is 10 Feet, 3 Inches long, 3 Feet, 10 inches broad, 10 Feet, 10 Inches deep, how many Solid Feet? } Feet. In. Par. 143 : 10 : 11

I have 4 Bales, each of them have the following Dimensions, viz. 6 Feet, 3 Inches long, 4 Feet, 5 Inches broad, and 5 Feet, 7 Inches high, what must I pay for the Tonnage at 25s. 4d. Ton? } £ 19 : 5 : -

P R A C.

P R A C T I C E.

XXI. MEASURING OF TIMBER.

I. ROUND TIMBER.

TO find the Content of Round Timber the customary Way.

1. Measure the Length of the Timber.
2. Girt the Timber at the middle of its Length.
3. Square $\frac{1}{4}$ Part of the Girt, *i. e.* Multiply $\frac{1}{4}$ Part of the Girt by itself.
4. Multiply the Length of the Timber by the Square of $\frac{1}{4}$ Part of its Girt, the Product will give the Content in Cubic Feet, &c.
5. Divide the Content by 40, the Quotient will be the Answer in Loads or Tons, the Remainder, if any, will be Feet.

N. B. When the Bark is upon the Timber, the Buyer is allowed an Abatement of $\frac{1}{4}$ of an Inch in Girt.

What the foregoing Method is erroneous has been sufficiently proved by many, but Custom has established it in all Places; for which reason I shall work the following Examples as taught above.

TABLES of aliquot Parts.

1 Ton or Load of Round Timber
the Integer.

Feet. Inches.

2 :	—	—	is —	$\frac{1}{20}$
3 :	4	—	—	$\frac{1}{15}$
4 :	—	—	—	$\frac{1}{10}$
5 :	—	—	—	$\frac{1}{8}$
6 :	8	—	—	$\frac{1}{6}$
8 :	—	—	—	$\frac{1}{5}$
10 :	—	—	—	$\frac{1}{4}$
13 :	4	—	—	$\frac{1}{3}$
20 :	—	—	—	$\frac{1}{2}$

1 Ton or Load of Squared Timber
the Integer.

Feet. In.

2 :	6	—	is —	$\frac{1}{25}$
4 :	2	—	—	$\frac{1}{12}$
5 :	—	—	—	$\frac{1}{10}$
6 :	3	—	—	$\frac{1}{8}$
8 :	4	—	—	$\frac{1}{6}$
10 :	—	—	—	$\frac{1}{5}$
12 :	6	—	—	$\frac{1}{4}$
16 :	8	—	—	$\frac{1}{3}$
25 :	—	—	—	$\frac{1}{2}$

Examples.

Examples.

1106. 17 Loads, 2 Feet, of Round Timber, at £ 1 : 18 : 9 q^{r} Load?

$$\begin{array}{rcl} s. & d. & 17 \text{ Loads.} \\ 18 : & \text{---} & \frac{2}{10} 15 : 6 \\ & 6 & \text{---} : 8 : 6 \\ & 3 & \text{---} : 4 : 3 \\ Ft. 2 & \text{---} & \frac{1}{10} : 1 : 11\frac{1}{2} \\ \hline & & \text{£ } 33 : \text{---} : 8\frac{1}{2} \text{ Answ.} \end{array}$$

1107. 3 Feet, 4 Inches of Round Timber, at £ 2 : 8 : 6 q^{r} Load?

$$\begin{array}{rcl} & & \text{£ } 2 : 8 : 6 \\ Ft. In. & & \\ 3 : 4 & \text{---} & \frac{1}{12} \text{ £ --- : 4 : ---} \frac{1}{2} \text{ Answ.} \end{array}$$

1108. 74 Tons, 4 Feet of Round Timber, at £ 1 : 19 : 11 q^{r} Ton?

$$\begin{array}{rcl} s. & d. & 74 \text{ Tons.} \\ 18 : & \text{---} & \frac{2}{10} 66 : 12 : \text{---} \\ & 1 : 8 & \text{---} \frac{1}{12} 6 : 3 : 4 \\ & 3 & \text{---} \frac{1}{12} : 18 : 6 \\ Ft. 4 & \text{---} & \frac{1}{10} : 3 : 11\frac{1}{2} \\ \hline & & \text{£ } 147 : 17 : 9\frac{1}{2} \text{ Answ.} \end{array}$$

1109. 87 Loads, 5 Feet, of Round Timber, at £ 2 : 1 : 8 q^{r} Load?

$$\begin{array}{rcl} & & 87 \text{ Loads.} \\ & & 2 \\ s. & d. & \\ 1 : 8 & \text{---} & \frac{1}{12} 174 \\ Ft. 5 & \text{---} & \frac{1}{10} 7 : 5 : \text{---} \\ & & : 5 : 2\frac{1}{2} \\ \hline & & \text{£ } 181 : 10 : 2\frac{1}{2} \text{ Answ.} \end{array}$$

1110. 6 Feet, 8 Inches of Round Timber, at £ 2 : 7 : 9 q^{r} Load?

$$\begin{array}{rcl} & & \text{£ } 2 : 7 : 9 \\ Ft. In. & & \\ 6 : 8 & \text{---} & \frac{2}{3} \text{ £ --- : 7 : } 11\frac{1}{2} \text{ Answ.} \end{array}$$

1111. 8 Foot of Round Timber, at £ 1 : 17 : 9 q^{r} Load?

$$\begin{array}{rcl} & & \text{£ } 1 : 17 : 9 \\ Ft. & & \\ 8 & \text{---} & \frac{1}{3} \text{ £ --- : 7 : } 6\frac{1}{2} \text{ Answ.} \end{array}$$

1112. 87 Loads, 10 Feet of Round Timber, at £ 2 : 3 : 6 q^{r} Load?

$$\begin{array}{rcl} & & 87 \text{ Loads.} \\ & & 2 \\ s. & d. & \\ 3 : 4 & \text{---} & \frac{1}{6} 174 \\ 2 & \text{---} & \frac{1}{10} : 14 : 10 : \text{---} \\ Ft. 10 & \text{---} & \frac{1}{4} : 14 : 6 \\ & & : 10 : 10\frac{1}{2} \\ \hline & & \text{£ } 189 : 15 : 4\frac{1}{2} \text{ Answ.} \end{array}$$

1113. 7 Loads, 13 Feet, 4 Inches, of Round Timber, at £ 2 : 5 : 9 q^{r} Load?

$$\begin{array}{rcl} & & \text{£ } 2 : 5 : 9 \\ & & 7 \\ Ft. In. & & \\ 13 : 4 & \text{---} & \frac{1}{3} 16 : \text{---} : 3 \\ & & : 15 : 3 \\ \hline & & \text{£ } 16 : 15 : 6 \text{ Answ.} \end{array}$$

1114. 1 Load, 20 Feet of Round Timber, at £ 2 : --- : 6 q^{r} Load?

$$\begin{array}{rcl} & & \text{£ } s. & d. \\ Ft. & & 2 : \text{---} : 6 \\ 20 & \text{---} & \frac{1}{2} 1 : \text{---} : 3 \\ \hline & & \text{£ } 3 : \text{---} : 9 \text{ Answer.} \end{array}$$

1115. 33 Feet

TICE.

1115. 33 Feet of Round Timber,
at £ 2 : 3 : 6 $\frac{1}{2}$ Load ?

$$\begin{array}{r} \text{£ } 2 : 3 : 6 \\ \text{Fl.} \\ 20 \text{ --- } \frac{1}{2} \text{ --- } 1 : 1 : 9 \\ 8 \text{ --- } \frac{1}{2} \text{ --- } \text{---} : 8 : 8\frac{1}{2} \\ 5 \text{ --- } \frac{1}{2} \text{ --- } \text{---} : 5 : 5\frac{1}{2} \\ \hline \text{£ } 1 : 15 : 10\frac{1}{2} \text{ Answer.} \end{array}$$

1116. 39 Feet of Round Timber,
at £ 2 : 4 : 9 $\frac{1}{2}$ Load ?

$$\begin{array}{r} \text{£ } 2 : 4 : 9 \\ \text{Fl.} \\ 20 \text{ --- } \frac{1}{2} \text{ --- } 1 : 2 : 4\frac{1}{2} \\ 10 \text{ --- } \frac{1}{2} \text{ --- } \text{---} : 11 : 2\frac{1}{2} \\ 5 \text{ --- } \frac{1}{2} \text{ --- } \text{---} : 5 : 7 \\ 4 \text{ --- } \frac{1}{2} \text{ --- } \text{---} : 4 : 5\frac{1}{2} \\ \hline \text{£ } 2 : 3 : 7\frac{1}{2} \text{ Answer.} \end{array}$$

1117. 1 Foot of Round Timber,
at £ 2 : 7 : 9 $\frac{1}{2}$ Load ?

$$\begin{array}{r} \text{£ } 2 : 7 : 9 \\ \text{Fl.} \\ 2 \text{ --- } \frac{1}{2} \text{ --- } \text{---} : 2 : 4\frac{1}{2} \\ 1 \text{ --- } \frac{1}{2} \text{ --- } \text{---} : 1 : 2\frac{1}{2} \text{ Answer.} \end{array}$$

1120. If a Piece of Round Timber without the Bark be 88 Inches in
Girt, and 27 Feet, 6 Inches long, how much is it worth at 40s.
 $\frac{1}{2}$ Load ?

The $\frac{1}{4}$ Part of 88 Inches is 1 Foot 10 Inches.

$$\begin{array}{r} \text{Fl. In. Ft. In.} \\ \text{Multiply } 1 : 10 \text{ by } 1 : 10 \\ \text{In. 6 --- } \frac{1}{2} \text{ --- } \text{---} : 11 \\ 4 \text{ --- } \frac{1}{2} \text{ --- } \text{---} : 7 : 4 \end{array}$$

Square of $\frac{1}{4}$ Part of the Girt. Feet 3 : 4 : 4

Mm

Multiply

Round Timber. 265

1118. 1 Load of Round Timber,
at 9 $\frac{1}{2}$ d. $\frac{1}{2}$ Foot.

i. e. 40 Feet, at 9 $\frac{1}{2}$ d. $\frac{1}{2}$ Foot.

$$\begin{array}{r} \text{d.} \\ 6 \text{ --- } \frac{1}{2} \text{ --- } 1 : \text{---} : \text{---} \\ 3 \text{ --- } \frac{1}{2} \text{ --- } \text{---} : 10 : \text{---} \\ \frac{1}{2} \text{ --- } \frac{1}{2} \text{ --- } \text{---} : 1 : 8 \\ \hline \text{£ } 1 : 11 : 8 \text{ Answer.} \end{array}$$

O R,

9 $\frac{1}{2}$ d.

5

3 : 11 $\frac{1}{2}$
8

£ 1 : 11 : 8 Answer.

1119. At £ 2 : 3 : 7 $\frac{1}{2}$ Load
of Round Timber, what is
that $\frac{1}{2}$ Foot ?

$$\begin{array}{r} \text{£ } 2 : 3 : 7 \\ \text{Fl.} \\ 4 \text{ --- } \frac{1}{2} \text{ --- } \text{---} : 4 : 4\frac{1}{2} \\ 1 \text{ --- } \frac{1}{2} \text{ --- } \text{---} : 1 : 1 \text{ Answer.} \end{array}$$

Feet. In. Feet. In.
Multiply 27 : 6 by 3 : 4

In. 82 : 6
4 - $\frac{1}{2}$ 9 : 2
9 | 1 : 8
4 | 0

Loads 2 : 11 at 40s. $\frac{1}{2}$ Load.

Feet. 4
10 --- $\frac{1}{2}$: 10
1 --- $\frac{1}{10}$: 1

£ 4 : 11 Answer.

1121. If a Piece of Round Timber with the Bark measures 89 $\frac{1}{2}$ Inches in Girt, and 47 Feet, 5 Inches in Length, how much is it worth at £ 2 : 1 : 6 $\frac{1}{2}$ Load ?

Feet. In. Par. 7 : 5 : 3 in Girt, 47 : 5 : 0 in Length. } Subtract.
9 allowed for Bark.

7 : 4 : 6
4

1 : 10

Fourth Part of the Girt.

Feet. In. Feet. In.

Multiply 1 : 10 by 1 : 10
In. 6 --- $\frac{1}{2}$: 11
4 --- $\frac{1}{3}$: 7 : 4

Square of $\frac{1}{2}$ Part of the Girt is Feet 3 : 4

Feet. In. Feet. In.
Multiply 47 : 5 by 3 : 4

In. 142 : 3
4 --- $\frac{1}{2}$ 15 : 9 : 8
15 | 8
4 | 0

Loads 3 : 38 Feet at £ 2 : 1 : 6 $\frac{1}{2}$ Load.

Loads 3

Loads 3 : 38 Feet, at £ 2 : 1 : 6 $\frac{1}{2}$ Load.

Feet.		6 : 4 : 6
20	$\frac{1}{2}$	1 : — : 9
10	$\frac{1}{4}$	— : 10 : 4 $\frac{1}{2}$
5	$\frac{1}{8}$	— : 8 : 3 $\frac{1}{2}$

£ 8 : 3 : 11 Answer.

Examples for the Learner's Exercise.

Answer.

- At £ 2 : 17 $\frac{1}{2}$ Load of Round Timber, what } £ 202 : 9 : 10 $\frac{1}{2}$
cost 71 Loads, 2 Feet? _____
- At 45s. $\frac{1}{2}$ Load of Round Timber, what cost 17 } 38 : 18 : 9
Loads, 3 Feet, 4 Inches? _____
- What cost 4 Feet of Round Timber, at £ 1 : 17 : 8 } — : 3 : 9
 $\frac{1}{2}$ Load? _____
- At £ 3 $\frac{1}{2}$ Load, what cost 8 Loads, 5 Feet of } 24 : 7 : 6
Round Timber? _____
- What cost 6 Feet, 8 Inches of Round Timber, at } — : 6 : 7 $\frac{1}{2}$
£ 1 : 19 : 8 $\frac{1}{2}$ Load? _____
- At £ 2 : 13 : 7 $\frac{1}{2}$ Load of Round Timber, what } 3 : 4 : 3 $\frac{1}{2}$
cost 1 Load, 8 Feet? _____
- What cost 71 Loads, 10 Feet of Round Timber, at } 148 : 2 : 9 $\frac{1}{2}$
£ 2 : 1 : 7 $\frac{1}{2}$ Load? _____
- At £ 2 : 15 $\frac{1}{2}$ Load of Round Timber, what cost } 50 : 8 : 4
18 Loads, 13 Feet, 4 Inches? _____
- At £ 3 : 17 $\frac{1}{2}$ Load of Round Timber, what cost } 336 : 17 : 6
87 Loads, 20 Feet? _____
- What cost 33 Feet of Round Timber, at £ 27 $\frac{1}{2}$ } 1 : 18 : 9
Load? _____
- What cost 39 Feet of Round Timber, at £ 2 : 8 : 6 } 2 : 7 : 3 $\frac{1}{2}$
 $\frac{1}{2}$ Load? _____
- At £ 1 : 17 : 9 $\frac{1}{2}$ Load of Round Timber, what } — : — : 11 $\frac{1}{2}$
cost 1 Foot? _____
- At 10 $\frac{1}{2}$ d. $\frac{1}{2}$ Foot of Round Timber, what cost 1 } 1 : 14 : 2
Load? _____
- At £ 2 : 5 : 6 $\frac{1}{2}$ Load of Round Timber, what } — : 1 : 1 $\frac{1}{2}$
cost 1 Foot? _____
- If a Piece of Round Timber without the Bark mea- } 6 : 2 : 11
sures 86 Inches in Girt, and 37 Feet, 5 Inches
long, how much is it worth at £ 2 : 1 : 8 $\frac{1}{2}$ Load? _____
- If a Piece of Round Timber with the Bark measures } 10 : 4 : 2
89 Inches in Girt, and 49 Feet, 11 Inches in
Length, how much is it worth at 50s. $\frac{1}{2}$ Load? _____

TO find the Price of a Load of Round Timber, at so much q^{r} Foot.

1. When the Price is Shillings.

R U L E.

Multiply the given Price by 2, the Product will be the Answer in Pounds.

Examples.

1122. At 2s. q^{r} Foot, what is that q^{r} Load?

$$\begin{array}{r} 2s. \\ 2 \\ \hline \text{£ } 4 \text{ Answer.} \end{array}$$

1123. At 3s. q^{r} Foot, what is that q^{r} Load?

$$\begin{array}{r} 3s. \\ 2 \\ \hline \text{£ } 6 \text{ Answer.} \end{array}$$

2. When the Price is Pence, or Shillings and Pence.

R U L E.

Divide the given Price in Pence by 6, the Quotient will be the Answer in Pounds, &c.

Examples.

1124. At 9d. q^{r} Foot, what is that q^{r} Load?

$$\begin{array}{r} 9d. \\ 6 \\ \hline \text{£ } 1 : 10 \text{ Answer.} \end{array}$$

1125. At 1s. 11d. q^{r} Foot, what is that q^{r} Load?

$$\begin{array}{r} 23d. \\ 6 \\ \hline \text{£ } 3 : 16 : 8 \text{ Answer.} \end{array}$$

3. When the Price is Farthings, or Pence and Farthings.

R U L E.

Divide the given Price in Farthings by 24, the Quotient will be the Answer in Pounds, &c.

Examples.

1126. At 3 Farthings q^{r} Foot, what cost 1 Load?

$$\begin{array}{r} 3 \text{ Far.} \\ 24 \left\{ \begin{array}{l} 4 \\ - : 15 \\ 6 \end{array} \right. \\ \hline \text{£ } - : 2 : 6 \text{ Answer.} \end{array}$$

O R,

40 Feet at $\frac{1}{4}$ d.

$$\begin{array}{r} 3d. \\ 3 : 4 \\ \frac{1}{4} - \frac{1}{4} = 10 \end{array} \left. \begin{array}{l} \\ \\ \end{array} \right\} \text{Subtract.}$$

£. 2 : 6 Answer.

1125. At

1127. At $7\frac{1}{2}d.$ pp Foot, what is that pp Load?

$$\begin{array}{r} 31 \text{ Far.} \\ 4 \\ 7 : 15 \\ 6 \end{array}$$

$\text{£ } 1 : 5 : 10$ Answer.

Examples for the Learner's Exercise.

Answer.

At $5s.$ pp Foot, what is that pp Load? — $\text{£ } 10 : - : -$

At $7d.$ pp Foot, what is that pp Load? — $1 : 3 : 4$

At $2s. 9d.$ pp Foot, what is that pp Load? — $5 : 10 : -$

At a $\frac{1}{2}d.$ pp Foot, what is that pp Load? — $- : 1 : 8$

At $7\frac{1}{2}d.$ pp Foot, how much is that pp Load? — $1 : 5 : -$

At $11\frac{1}{2}d.$ pp Foot, how much is that pp Load? — $1 : 19 : 2$

TO find the Price of 1 Foot of Round Timber, at so much pp Load.

1. When the Price is Pounds only.

R U L E.

Divide the given Price by 2, the Quotient under the Place of Pounds will be the Answer in Shillings, the Remainder, if any, will be Sixpence.

Examples.

1128. At $\text{£ } 4$ pp Load, what is that pp Foot?

$$\begin{array}{r} 4 \text{ £} \\ 2 \\ \hline \text{£ } 2 \text{ Shillings.} \end{array}$$

1129. At $\text{£ } 9$ pp Load, what is that pp Foot?

$$\begin{array}{r} 9 \text{ £} \\ 2 \\ \hline 4 : 10 \end{array}$$

Answer $4s. 6d.$

2. When the given Price is Pounds, Shillings, and Pence.

R U L E.

Multiply the given Price by 6, the Product under the Place of Pounds will be the Answer in Pence, the Product under the Place of Shillings will be such a Part of a Penny as the Shillings are of a Pound.

Examples.

Examples.

1130. At £ 1 : 10 $\frac{1}{2}$ Load, what is that $\frac{1}{2}$ Foot?

$$\begin{array}{r} \text{£ } 1 : 10 \\ 6 \end{array}$$

 9 : — Answer 9d.
1133. At 2s. 6d. $\frac{1}{2}$ Load, what does 1 Foot cost?

$$\begin{array}{r} s. 2 : 6d. \\ 6 \end{array}$$

 — 15 : — Answer $\frac{1}{4}$ d.
1131. At £ 3 : 16 : 8 $\frac{1}{2}$ Load, what does 1 Foot cost?

$$\begin{array}{r} \text{£ } 3 : 16 : 8 \\ 6 \end{array}$$

 23 : — : — Answer 1s. 11d.
1134. At £ 3 : 16 $\frac{1}{2}$ Load, what does 1 Foot cost?

$$\begin{array}{r} \text{£ } 3 : 16 \\ 6 \end{array}$$

 22 : 16 Answer 1s. 10 $\frac{1}{2}$ d.
1132. At £ 1 : 5 : 10 $\frac{1}{2}$ Load, what is that $\frac{1}{2}$ Foot?

$$\begin{array}{r} \text{£ } 1 : 5 : 10 \\ 6 \end{array}$$

 7 : 15 : — Answer 7 $\frac{1}{2}$ d.
1135. At £ 4 : 19 : 8 $\frac{1}{2}$ Load, what is that $\frac{1}{2}$ Foot?

$$\begin{array}{r} \text{£ } 4 : 19 : 8 \\ 6 \end{array}$$

 29 : 18 : — Answer 2s. 5 $\frac{1}{2}$ d.

Examples for the Learner's Exercise.

At £ 10 $\frac{1}{2}$ Load, what does 1 Foot cost?	—	£ — : 5 : —	Answer.
At £ 1 : 3 : 4 $\frac{1}{2}$ Load, what does 1 Foot cost?	—	— : — : 7	
At £ 5 : 10 $\frac{1}{2}$ Load, what does 1 Foot cost?	—	— : 2 : 9	
At 20d. $\frac{1}{2}$ Load, what is that $\frac{1}{2}$ Foot?	—	— : — : — $\frac{1}{2}$	
At £ 1 : 5 $\frac{1}{2}$ Load, what is that $\frac{1}{2}$ Foot?	—	— : — : 7 $\frac{1}{2}$	
At £ 1 : 11 : 8 $\frac{1}{2}$ Load, what is that $\frac{1}{2}$ Foot?	—	— : — : 9 $\frac{1}{2}$	
At £ 1 : 19 : 2 $\frac{1}{2}$ Load, what is that $\frac{1}{2}$ Foot?	—	— : — : 11 $\frac{1}{2}$	
At £ 5 : 7 : 9 $\frac{1}{2}$ Load, what is that $\frac{1}{2}$ Foot?	—	— : 2 : 8 $\frac{1}{2}$	

II. SQUARED TIMBER.

II. Of Squared Timber, i. e. such as have equal Bases, and two of the Sides straight and parallel.

1. Measure the Length of the Timber.
2. Measure the Length of two Sides of the Base that are conjunct.
3. Find the Area of the Base thus, Multiply its Dimensions together.
4. Multiply the Area of the Base by the Length, the Product will give the Content in Cubic Feet, &c.
5. Divide the Content by 50, the Quotient will give the Answer in Loads or Tons, the Remainder, if any, will be Feet.

Examples.

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Squared Timber. 371

Examples.

1136. 3 Loads, 2 Feet, 6 Inches
of Squared Timber, at 2/ 17s.
9d. $\frac{1}{16}$ Load.

$$\begin{array}{r} \text{£ } 2 : 17 : 9 \\ \hline 3 \end{array}$$

$$\begin{array}{r} \text{Ft. In.} \quad \begin{array}{r} 8 : 13 : 3 \\ 2 : 6 - \frac{1}{16} \end{array} \\ \hline \end{array}$$

$$\text{£ } 8 : 16 : 1\frac{1}{2} \text{ Answer.}$$

1137. 17 Loads, 4 Feet, 2 Inches
of Squared Timber, at 2/ 13s.
11d. $\frac{1}{16}$ Load.

$$\begin{array}{r} \text{£ } 2 : 13 : 11 \\ \hline 4 \end{array}$$

$$\begin{array}{r} 10 : 15 : 8 \\ \hline 4 \end{array}$$

$$\begin{array}{r} \text{Ft. In.} \quad \begin{array}{r} 43 : 2 : 8 \\ 2 : 13 : 11 \\ 4 : 2 - \frac{1}{16} \end{array} \\ \hline \end{array}$$

$$\text{£ } 46 : 1 : -\frac{1}{2} \text{ Answer.}$$

1138. 5 Feet of Squared Timber,
at $\text{£ } 2 : 13 : 9$ $\frac{1}{16}$ Ton.

$$\text{£ } 2 : 13 : 9$$

$$\text{Ft. } 5 - \frac{1}{16} - : 5 : 4\frac{1}{2} \text{ Answer.}$$

1139. 6 Feet, 3 Inches of Squared
Timber, at $\text{£ } 3 : 1 : 6$ $\frac{1}{16}$
Load.

$$\text{£ } 3 : 1 : 6$$

$$\begin{array}{r} \text{Ft. In.} \quad \begin{array}{r} 18 : 11 : - \\ 6 : 3 - \frac{1}{16} \end{array} \\ \hline \end{array}$$

$$- : 7 : 8\frac{1}{2} \text{ Answer.}$$

1140. 8 Feet, 4 Inches of Squared
Timber, at $\text{£ } 2 : 17 : 8$ $\frac{1}{16}$
Load?

$$\text{£ } 2 : 17 : 8$$

$$\begin{array}{r} \text{Ft. In.} \quad \begin{array}{r} 8 : 4 - \frac{1}{16} \\ \hline \end{array} \\ \hline \end{array}$$

$$- : 9 : 7\frac{1}{2} \text{ Answer.}$$

1141. 10 Feet of Squared Timber,
at $\text{£ } 2 : 17 : 3$ $\frac{1}{16}$ Load.

$$\text{£ } 2 : 17 : 3$$

$$\text{Ft. } 10 - \frac{1}{16} - : 11 : 5\frac{1}{2} \text{ Answer.}$$

1142. 12 Feet, 6 Inches of Squared
Timber, at $\text{£ } 3 : 18 : 6$ $\frac{1}{16}$
Ton.

$$\text{£ } 3 : 18 : 6$$

$$\begin{array}{r} \text{Ft. In.} \quad \begin{array}{r} 12 : 6 - \frac{1}{16} \\ \hline \end{array} \\ \hline \end{array}$$

$$- : 19 : 7\frac{1}{2} \text{ Answer.}$$

1143. 13 Loads, 16 Feet, 8 In-
ches of Squared Timber, at
 $\text{£ } 2 : 13 : 6$ $\frac{1}{16}$ Load?

$$\begin{array}{r} \text{£ } 2 : 13 : 6 \\ \hline 12 \end{array}$$

$$\begin{array}{r} \text{Ft. In.} \quad \begin{array}{r} 32 : 2 : - \\ 2 : 13 : 6 \\ 16 : 8 - \frac{1}{16} \end{array} \\ \hline \end{array}$$

$$\text{£ } 35 : 13 : 4 \text{ Answer.}$$

1144. 7 Loads, 25 Feet of Squared
Timber, at $\text{£ } 2 : 13$ $\frac{1}{16}$ Load.

$$\begin{array}{r} \text{£ } 2 : 13 : - \\ \hline 7 \end{array}$$

$$\begin{array}{r} \text{Ft. } \begin{array}{r} 18 : 11 : - \\ 25 - \frac{1}{16} \end{array} \\ \hline \end{array}$$

$$\text{£ } 19 : 17 : 6 \text{ Answer.}$$

1143. 1 Load

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PRAC-

1145. 1 Load of Squared Timber,
at $7\frac{1}{2}$ d. Φ Foot, i. e. 50 Feet,
at $7\frac{1}{2}$ d. Φ Foot.

$7\frac{1}{2}$ d.

$$\begin{array}{r} 5 \\ 3 : - \frac{1}{4} \\ 10 \end{array} \quad 5 \times 10 = 50$$

$\mathcal{L} 1 : 10 : 2\frac{1}{2}$ Answer.

1146. 1 Foot of Squared Timber,
at $\mathcal{L} 2 : 15 : 6 \Phi$ Load.

$\mathcal{L} 2 : 15 : 6$

Ft. 5 -- $\frac{1}{10}$ -- : 5 : $6\frac{1}{2}$

1 -- $\frac{1}{3}$ -- : 1 : $1\frac{1}{2}$ Answer.

1147. 49 Feet of Squared Timber,
at $\mathcal{L} 2 : 10 : 6 \Phi$ Load?

$\mathcal{L} 2 : 10 : 6$

Ft. 5 -- $\frac{1}{10}$ -- : 5 : $2\frac{1}{2}$

1 -- $\frac{1}{3}$ -- : 1 : $\frac{1}{4}$

$\mathcal{L} 2 : 9 : 5\frac{1}{2}$ Answer.

1148. 47 Loads, 12 Feet of
Squared Timber, at $\mathcal{L} 2 : 14$
 Φ Load.

Loads. Ft.

47 : 12 at $\mathcal{L} 2 : 14$.

$$\begin{array}{r} 94 \\ 14 -- \frac{1}{10} -- 32 : 18 : -- \\ Ft. 10 -- \frac{1}{3} -- : 10 : 9\frac{1}{2} \\ 2 -- \frac{1}{3} -- : 2 : 1\frac{1}{2} \end{array}$$

$\mathcal{L} 127 : 10 : 11\frac{1}{2}$ Answer.

1149. 3 Loads, 37 Feet of Squared
Timber, at $\mathcal{L} 2 : 8 : 6 \Phi$
Load.

$\mathcal{L} 2 : 8 : 6$

3

$$\begin{array}{r} Ft. \quad 7 : 5 : 6 \\ 25 -- \frac{1}{10} -- 1 : 4 : 3 \\ 10 -- \frac{1}{3} -- : 9 : 8\frac{1}{2} \\ 2 -- \frac{1}{3} -- : 1 : 11\frac{1}{2} \end{array}$$

$\mathcal{L} 9 : 1 : 4\frac{1}{2}$ Answer.

1150. At $\mathcal{L} 2 : 15 \Phi$ Load, what is the Value of a Piece of Squared
Timber, whose Dimensions at the Base are 17 Inches by 13 In-
ches, and 18 Feet, 7 Inches in Length?

Ft. In. Ft. In.

Multiply 1 : 5 by 1 : 1

In. 1 -- $\frac{1}{12}$ -- : 1 : 5

$\mathcal{L} 1 : 6$ Area of the Base.

Ft. In. Ft. In.

Multiply 18 : 7 by 1 : 6

In. 6 -- $\frac{1}{2}$ 9 : 3 : 6

$\mathcal{L} 27 : 10$

Ft. In.

27 : 10 at $\mathcal{L} 2 : 15 : - \Phi$ Load.

Ft. In.

$$\begin{array}{r} 10 : --- \frac{1}{12} --- : 11 : --- \\ 10 : --- \frac{1}{12} --- : 11 : --- \\ 5 : --- \frac{1}{12} --- : 5 : 6 \\ 2 : 6 -- \frac{1}{12} -- : 2 : 9 \\ 3 : --- \frac{1}{10} --- : --- : 3\frac{1}{2} \\ 1 : --- \frac{1}{3} --- : --- : 1 \end{array}$$

$\mathcal{L} 1 : 10 : 7\frac{1}{4}$ Answer.

O R,

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O R,

$$\begin{array}{r} \text{£ } 2 : 15 : - \\ \text{Ft. In.} \quad \begin{array}{l} 12 : 6 - \\ 10 : - \\ 5 : - \\ 3 - \frac{1}{2} \\ 1 - \frac{1}{4} \end{array} \quad \begin{array}{l} - : 13 : 9 \\ - : 11 : - \\ - : 5 : 6 \\ - : - : 3\frac{1}{2} \\ - : - : 1 \end{array} \end{array}$$

£ 1 : 10 : 7½ Answer.

Or thus,

$$\begin{array}{r} \text{£ } 2 : 15 : - \\ \text{Ft. In.} \quad \begin{array}{l} 25 : - \\ 2 : 6 - \\ 3 - \frac{1}{2} \\ 1 - \frac{1}{4} \end{array} \quad \begin{array}{l} - : 1 : 7 : 6 \\ - : 2 : 9 \\ - : - : 3\frac{1}{2} \\ - : - : - \frac{1}{4} \end{array} \end{array}$$

£ 1 : 10 : 7 Answer.

1151. What is the Value of a Piece of Squared Timber, whose Dimensions at the Base are 10½ Inches by 11½ Inches, and 15 Feet, 7 Inches in Length, at £ 2 : 17 qd Load?

In. Par. In. Par.

Multiply 11 : 9 by 10 : 6

$$\begin{array}{r} \text{In.} \quad \begin{array}{l} 6 - \frac{1}{2} \\ 4 - \frac{1}{4} \\ \frac{1}{2} - \frac{1}{8} \end{array} \quad \begin{array}{l} 5 : 10 : 6 \\ 3 : 11 : - \\ - : 5 : 10 : 6 \end{array} \end{array}$$

Inches 10 : 3 Area of the Base.

Ft. In. In. Par.

Multiply 15 : 7 by 10 : 3

$$\begin{array}{r} \text{In. Par.} \quad \begin{array}{l} 6 : - \\ 3 : - \\ 1 : - \\ 3 - \frac{1}{4} \end{array} \quad \begin{array}{l} 7 : 9 : 6 \\ 3 : 10 : 9 \\ 1 : 3 : 7 \\ - : 3 : 10 : 9 \end{array} \end{array}$$

Feet 13 : 3

13½ Feet, at £ 2 : 17 : - qd Load.

Ft.

$$\begin{array}{r} 10 - \frac{1}{2} - : 11 : 4\frac{1}{2} \\ 2 - \frac{1}{4} - : 2 : 3\frac{1}{2} \\ 1 - \frac{1}{8} - : 1 : 1\frac{1}{8} \\ \frac{1}{4} - \frac{1}{4} - : - : 3\frac{1}{2} \end{array}$$

£ - : 15 : -½ Answer.

Examples for the Learner's Exercise.

- What cost 8 Loads, 2 Feet, 6 Inches of Squared Timber, at £ 2 : 8 qd Load? } £ 19 : 6 : 4½
- What cost 13 Loads, 4 Feet, 2 Inches of Squared Timber, at £ 2 : 7 : 9 qd Load? } 31 : 4 : 8½
- What cost 17 Loads, 5 Feet of Squared Timber, at £ 2 : 10 qd Load? } 42 : 15 : -
- At £ 2 : 13 qd Load of Squared Timber, what cost 6 Feet, 3 Inches? } - : 6 : 7½
- What cost 8 Feet, 4 Inches of Squared Timber, at £ 2 : 17 qd Load? } - : 9 : 6

N n

What

Answer.

- What cost 17 Loads, 10 Feet of Squared Timber, at } $\text{£}47 : 6 : -$
 55s. $\frac{1}{4}$ Load? _____
- At 59s. $\frac{1}{4}$ Load of Squared Timber, what cost 12 } $- : 14 : 9$
 Feet, 6 Inches? _____
- What cost 17 Loads, 16 Feet, 8 Inches of Squared } $49 : 8 : -$
 Timber, at $\text{£}2 : 17$ $\frac{1}{4}$ Load? _____
- What cost 13 Loads, 25 Feet of Squared Timber, } $32 : 4 : 7\frac{1}{2}$
 at $\text{£}2 : 7 : 9$ $\frac{1}{4}$ Load? _____
- At 1s. $3\frac{1}{4}$ $\frac{1}{4}$ Foot of Squared Timber, what cost } $3 : 3 : 6\frac{1}{2}$
 1 Load? _____
- At $\text{£}2 : 9 : 2$ $\frac{1}{4}$ Load of Squared Timber, what } $- : - : 11\frac{1}{2}$
 cost 1 Foot? _____
- What cost 49 Feet of Squared Timber, at $\text{£}2 : 8$ } $2 : 7 : -\frac{1}{4}$
 $\frac{1}{4}$ Load? _____
- At $\text{£}2 : 9 : 6$ $\frac{1}{4}$ Load of Squared Timber, what } $1 : 10 : 2$
 is the Value of a Piece whose Dimensions at the
 Base are 14 Inches by 17 Inches, and 19 Feet,
 11 Inches in Length? _____
- What is the Value of a Piece of Squared Timber, } $2 : 19 : 1\frac{1}{2}$
 whose Dimensions at the Base are $17\frac{1}{2}$ Inches by
 $14\frac{1}{2}$ Inches, and 29 Feet 8 Inches in Length, at
 57s. $\frac{1}{4}$ Load? _____

III. UNEQUAL SQUARED TIMBER.

III. Unequal Squared Timber, i. e. such as have unequal Bases.

R U L E.

1. Measure the Length of the Timber.
2. Multiply half the Sum of the Breadths of the Bases, by half the Sum of the Depths of the Bases, for the mean Area, or Area in the middle.
3. Multiply the mean Area by the Length, the Product will be the Content in Cubic Feet.
4. Divide the Content by 50, &c. as before.

Examples.

1152. If a Piece of Timber has the following Dimensions, what is worth at 57s. $\frac{1}{4}$ Load?

The { greater } Base { 17 } Inches broad, and { 13 } Inches deep,
 { lesser } { 13 } { 10 }
 and 17 Feet, 11 Inches long.

1 Foot.

TICE.

Unequal Squared Timber. 275

Ft. In.

1 : 5 } Add.
1 : 13

2 : 6 Sum of the Breadths.
2

1 : 3 half Sum of the Breadths.

Ft. In.

1 : 13 } Add.
— : 10

1 : 11 Sum of the Depths.
2

— : 11 : 6 half Sum of the Depths.

Ft. In. In. Par.

1 : 3 × 11 : 6

In. Par.

6 : — }
4 : — }
1 : 6 } — : 7 : 6
— : 5 : —
— : 1 : 10 : 6

1 : 2 : 4 : 6 mean Area, or Area in the middle.

Ft. In. Par. Ft. In.

1 : 2 : 4 × 17 : 11

3

3 : 7 : —
6

In. 21 : 6 } Subtract.
1 : — }
1 : — } — : 1

Ft. 21 : 5 Inches.

Ft. In.

21 : 5 at £ 2 : 17 : — 4^p Load.

Ft. In.

25 : — }
5 : — } — : 1 : 8 : 6 } Subtract.
— : 5 : 8 1/2 }

20 : — }
1 : — } — : 1 : 2 : 9 1/2 }

5 : — }
— : — : — : 5 1/2 }

£ 1 : 4 : 4 1/2 Answer.

* Of 5 Feet.

1153. If a Piece of Timber has the following Dimensions, what is it worth at 58s. $\frac{1}{2}$ Load?

The $\left\{ \begin{array}{l} \text{greater} \\ \text{lesser} \end{array} \right\}$ Base $\left\{ \begin{array}{l} 19 \\ 17 \end{array} \right\}$ Inches broad, $\left\{ \begin{array}{l} 23 \\ 22 \end{array} \right\}$ Inches deep, and 21 Feet, 7 Inches long.

Ft. In.

1 : 7

1 : 5

3 : —

2

1 : 6 half Sum of the Breadths.

Ft. In.

1 : 11

1 : 10

3 : 9

2

1 : 10 : 6 half Sum of the Depths.

Ft. In. Par. Ft. In.
In. 1 : 10 : 6 \times 1 : 6
 6 $\dots \frac{1}{2}$ — : 11 : 3

2 : 9 : 9 mean Area.

Ft. In. Par. Ft. In.
 2 : 9 : 9 \times 21 : 7
 3

8 : 5 : 3
 7

In. 59 : — : 9
 6 $\dots \frac{1}{2}$ 1 : 4 : 10 : 6
 1 $\dots \frac{1}{2}$ — : 2 : 9 : 9
 60 : 8
 50

Load 1 : 10 : 8

Load. *Ft. In.*

1 : 10 : 8 at £ 2 : 18 : — $\frac{1}{2}$ Load.

Ft. In. £ s. d.
 10 : — $\dots \frac{1}{3}$ 2 : 18 : —
 2 : — $\dots \frac{1}{3}$ — : 11 : 7
 8 $\dots \frac{1}{3}$ — : 2 : 3 $\frac{1}{2}$ not to be added.
 — : — : 9 $\frac{1}{2}$

£ 3 : 10 : 4 $\frac{1}{2}$ Answer.

But

But if a Piece of Timber should happen to be exactly square at each End.

Work as in the following Example.

1154. If a Piece of Timber be 27 Inches square at the greater End, 17 Inches square at the lesser End, and 30 Feet long, what is the Value of the same at £ 2 : 1 : 7 $\frac{1}{2}$ Load?

Ft. In.

2 : 3 } *Side of the Square at the* { *greater* } *End.*
17 : 7 } { *lesser* }

3 : 10 *Sum of the Sides of the Square at both Ends.*

1 : 11 *the Side of the Square in the middle.*

Ft. In. Ft. In.

1 : 11 \times 1 : 11

2

In.

3 : 10

1 -- $\frac{1}{2}$

— : 1 : 11

} *Subtract.*

3 : 8 : 1 *Square in the middle.*

Ft. In. Ft.

3 : 8 \times 30

5

18 : 4

6

11 | 0 : —

4 | 0

Loads 2 : 30 Feet, at £ 2 : 1 : 7 $\frac{1}{2}$ Load.

3

Lds. Ft.

Ft. 6 : 4 : 9 *the Price of* 3 : — } *Subtract.*
10 -- $\frac{1}{2}$ — : 10 : 4 $\frac{1}{2}$ *the Price of* — : 10 }

£ 5 : 14 : 4 $\frac{1}{2}$ *the Price of* 2 : 30

Examples for the Learner's Exercise.

At $\mathcal{L} 2 : 7 : 6$ q^{r} Load, what is the Value of a Piece of Timber whose Dimensions are as follows,

The $\left\{ \begin{array}{l} \text{greater} \\ \text{lesser} \end{array} \right\}$ Base $\left\{ \begin{array}{l} 16 \\ 13 \end{array} \right\}$ Inches broad, $\left\{ \begin{array}{l} 11 \\ 11 \end{array} \right\}$ Inches deep, and 19 Feet, 7 Inches long.

Answer $\mathcal{L} 1 : - : 7$

At $\mathcal{L} 2 : 14$ q^{r} Load, what is the Value of a Piece of Timber, whose Dimensions are as follows,

The $\left\{ \begin{array}{l} \text{greater} \\ \text{lesser} \end{array} \right\}$ Base $\left\{ \begin{array}{l} 27 \\ 25 \end{array} \right\}$ Inches broad, $\left\{ \begin{array}{l} 19 \\ 21 \end{array} \right\}$ Inches deep, and 27 Feet, 9 Inches long.

Answer $\mathcal{L} 5 : 8 : 2$

If a Piece of Timber be 27 Inches square at the greater End, 18 Inches square at the lesser End, and 31 Feet, 7 Inches long, what is the Value of the same at $\mathcal{L} 2 : 4 : 9$ q^{r} Load?

Answer $\mathcal{L} 4 : 18 : 10\frac{1}{2}$



A D D E N D A.

According to my Promise in Page 30, here follow several Examples, wrought by inverting the Question.

R U L E.

Suppose the given Quantity to be the Price, and the Price to be the Quantity, then proceed as in the foregoing Sheets.

Examples.

1. What will 13 lb. come to, at 4d. $\frac{1}{2}$ lb.?

Inverted as directed in the Rule you will have the Question thus, what cost 4 lb. at 13d. or 1s. 1d. $\frac{1}{2}$ lb.?

$$\begin{array}{r} s. \quad d. \\ 1 : 1 \\ \hline 4 \\ \hline s. 4 : 4 \text{ Answer.} \end{array}$$

2. What cost a Barrel of Beer, at 9d. $\frac{1}{2}$ Gallon? i. e. what cost 9 Gallons, at 36d. each?

$$\begin{array}{r} 36d. = 3s. \\ \hline 9 \\ \hline \text{£} 1 : 7 \text{ Answer.} \end{array}$$

See Example 801.

3. What cost a Hoghead of Beer, at 8 $\frac{1}{2}$ d. $\frac{1}{2}$ Gallon? i. e. what cost 8 $\frac{1}{2}$ Gallons, at 54d. each?

$$\begin{array}{r} d. \quad s. \quad d. \\ 54 = 4 : 6 \\ \hline 8 \\ \hline \frac{1}{2} \dots \begin{array}{|l} 1 : 16 : - \\ - : 2 : 3 \end{array} \\ \hline \text{£} 1 : 18 : 3 \text{ Answer.} \end{array}$$

See Example 801.

4. What cost 31 lb. at 9d. $\frac{1}{2}$ lb.?

$$\begin{array}{r} d. \quad s. \quad d. \\ 31 = 2 : 7 \\ \hline 9 \\ \hline \text{£} 1 : 3 : 3 \text{ Answer.} \end{array}$$

5. What

5. What cost 36 lb. at 11d. pp lb.?

$$36d. = 3s.$$

11

$$\underline{\text{£ } 1 : 13 \text{ Answer.}}$$

O R,

lb. s.

12 will come to 11

3 3

36 will come to $\text{£ } 1 : 13$ as above.

6. What cost 48 lb. at $5\frac{1}{2}d.$ pp lb.?
or $5\frac{1}{2}lb.$ at (48d. or) 4s.
 pp lb.?

4s.

5

lb. 1 : —
12 : 2
4 : 1

$$\underline{\text{£ } 1 : 3 \text{ Answer.}}$$

This may also be performed as pp Rule in Page 126.

$$5\frac{1}{2} = \frac{11}{2}$$

4s.

23

92

4

$$23s. = \text{£ } 1 : 3 \text{ as above.}$$

But the Answer to this Question may be known by Inspection, for if I multiply any Number by 4, and divide the Product by 4, the Quotient will be the same as the Multiplicand, viz. 23s. or $\text{£ } 1 : 3$ as before.

O R,

$$\begin{array}{r} 48 \text{ Sixpences} = \text{£ } 1 : 4 \\ 48 \text{ Farthings} = \text{—} : 1 \end{array} \left. \begin{array}{l} \\ \end{array} \right\} \text{Subtract.}$$

$$\underline{\text{£ } 1 : 3 \text{ Answer.}}$$

7. What cost 19 Bushels, at $11\frac{1}{2}d.$ pp Bushel?

d. s. d.

$$19 = 1 : 7$$

12

$$\begin{array}{r} \text{Bush.} \\ 19 : \text{—} \\ \text{—} : 4\frac{1}{2} \\ 18 : 7\frac{1}{2} \end{array} \left. \begin{array}{l} \\ \\ \end{array} \right\} \begin{array}{l} \text{the Price of} \\ \left\{ \begin{array}{l} 12 \\ \text{—} : \frac{1}{2} \\ 11\frac{1}{2} \end{array} \right\} \text{Sub.} \end{array}$$

See Example 37.

8. What cost 96 Pair of Gloves, at 1s. 3d. pp Pair? Or what cost $1\frac{1}{4}$ at (96s. or) $\text{£ } 4 : 16$ each?

$$\begin{array}{r} \text{£ } s. \\ 4 : 16 \\ 1 : 4 \\ \frac{1}{4} \text{ -- } \frac{1}{4} \end{array} \left. \begin{array}{l} \\ \\ \end{array} \right\} \text{£ } 6 : \text{— Answer.}$$

See Example 52.

9. What

9. What cost 1 Barrel (or 32 Gallons) of Ale, at $7\frac{1}{4}d.$ $\frac{1}{4}$ Gallon? or $7\frac{1}{4}$ Gallons, at (32 d. or) 2s. 8d. $\frac{1}{4}$ Gallon?

$$\begin{array}{r} s. \quad d. \\ 2 : 8 \\ 7 \\ \hline 18 : 8 \\ \frac{1}{4} \dots \frac{1}{4} \quad \frac{1}{4} \quad \frac{1}{4} \\ \hline 18 : 8 \\ \hline s. 19 : 4 \text{ Answer.} \end{array}$$

See Example 816.

10. What cost 1 Hoghead (or 48 Gallons) of Ale, at $8\frac{1}{4}d.$ $\frac{1}{4}$ Gallon? or $8\frac{1}{4}$ Gallons, at (48d. or) 4s. $\frac{1}{4}$ Gallon?

$$\begin{array}{r} 8 \text{ Gall.} \\ 4 \\ \hline 1 : 12 \\ \frac{1}{4} \dots \frac{1}{4} \quad \frac{1}{4} \quad \frac{1}{4} \\ \hline 1 : 12 \\ \hline \pounds 1 : 14 \text{ Answer.} \end{array}$$

Or $8\frac{1}{4} \times 4 = 34s. = \pounds 1 : 14.$

See Example 817.

WHEN the Price is Pence, and there is $\frac{1}{4}$, $\frac{1}{2}$, or $\frac{3}{4}$ of a Yard, Pound, Hundred, Ton, &c. reckon it such a Part of a Penny, and let the Farthings be reckoned such a Part of a Yard, Pound, Hundred, Ton, &c. as they are of a Penny. But when the Price is Shillings, reckon it such a Part of a Shilling, &c.

Examples.

11. What cost 29 Yards, 1 Quarter, at $11d.$ $\frac{1}{4}$ Yard? or 11 Yards, at (29 $\frac{1}{4}d.$ or) 2s. $5\frac{1}{4}d.$ $\frac{1}{4}$ Yard?

$$\begin{array}{r} s. \quad d. \\ 2 : 5\frac{1}{4} \\ 11 \\ \hline \pounds 1 : 6 : 9\frac{1}{4} \text{ Answer.} \end{array}$$

13. At $7\frac{1}{4}d.$ $\frac{1}{4}$ C. what cost $47\frac{1}{4}C.$ or $7\frac{1}{4}C.$ at (47 $\frac{1}{4}d.$ or) 3s. $11\frac{1}{4}d.$ $\frac{1}{4}$ C.?

$$\begin{array}{r} s. \quad d. \\ 3 : 11\frac{1}{4} \\ 7 \\ \hline C. \quad 1 : 7 : 8\frac{1}{4} \\ \frac{1}{4} \dots \frac{1}{4} \quad \frac{1}{4} \quad \frac{1}{4} \\ \hline 1 : 11\frac{1}{4} \\ \hline \pounds 1 : 9 : 8\frac{1}{4} \text{ Answer.} \end{array}$$

12. What cost $37\frac{1}{4}$ Yards at $8\frac{1}{4}d.$ $\frac{1}{4}$ Yard? or $8\frac{1}{4}$ Yards, at (37 $\frac{1}{4}d.$ or) 3s. $1\frac{1}{4}d.$ $\frac{1}{4}$ Yard?

$$\begin{array}{r} s. \quad d. \\ 3 : 1\frac{1}{4} \\ 8 \\ \hline Yd. \quad 1 : 5 : 2 \\ \frac{1}{4} \dots \frac{1}{4} \quad \frac{1}{4} \quad \frac{1}{4} \\ \hline 1 : 9\frac{1}{4} \\ \hline \pounds 1 : 5 : 11\frac{1}{4} \text{ Answer.} \end{array}$$

14. What cost $72\frac{1}{4}lb.$ at $23\frac{1}{4}d.$ $\frac{1}{4}$ lb. or $23\frac{1}{4}lb.$ at (72 $\frac{1}{4}d.$ or) 6s. $\frac{1}{4}d.$ $\frac{1}{4}$ lb.?

$$\begin{array}{r} 24 \\ s. \quad 6 \dots \frac{3}{4} \\ \frac{1}{4} \dots \frac{1}{4} \quad \frac{1}{4} \quad \frac{1}{4} \\ \hline 7 : 4 : - \text{ Case III.} \\ \hline 1 : 6 \\ \hline lb. \quad 7 : 4 : 6 \text{ for } 24 \\ \frac{1}{4} \dots \frac{1}{4} \quad \frac{1}{4} \quad \frac{1}{4} \\ \hline 1 : 6 \text{ for } \frac{1}{4} \\ \hline \pounds 7 : 3 : - \text{ Answer.} \end{array}$$

* 24 Farthings = 6d.

15. What

A D D E N D A

15. What cost $113\frac{1}{2}$ lb. at $3\frac{1}{2}$ d.
 q^{r} lb. ? or $3\frac{1}{2}$ lb. at $(113\frac{1}{2}$ d.
 or) $9\text{ s. } 5\frac{1}{2}$ d. q^{r} lb. ?

$3\frac{1}{2} = \frac{7}{2}$ See Page 127, Example 639.

$$\begin{array}{r} \text{s.} \quad \text{d.} \\ 9 : 5\frac{1}{2} \\ \hline 7 \\ \hline 3 : 6 : 4\frac{1}{2} \\ \hline 2 \end{array}$$

$\text{£ } 1 : 13 : 2$ Answer.

16. What cost 1 : — : $18\frac{1}{2}$, at
 q^{r} lb. ?

Reduce the C. &c. into lb. as taught
 in Page 161, Example 774.

$$\begin{array}{r} 1 \\ 111 \\ 18\frac{1}{2} \\ \hline \text{lb. } 130\frac{1}{2} \end{array}$$

Or 10 lb. at $(130\frac{1}{2}$ d. or) 11s. $8\frac{1}{2}$ d.
 q^{r} lb. ?

$$\begin{array}{r} \text{s.} \quad \text{d.} \\ 11 : 8\frac{1}{2} \\ \hline 10 \\ \hline \text{£ } 5 : 16 : 10\frac{1}{2} \text{ Answer.} \end{array}$$

17. What cost 17 Hogsheads, 12
 Gallons of Ale, at 45 s. q^{r}
 Hoghead ? or $2\frac{1}{2}$ Hogsheads,
 at $\text{£ } 17 : 5$ q^{r} Hoghead ?

$2\frac{1}{2} = \frac{5}{2}$ See Page 126, Example 634.

$$\begin{array}{r} \text{£} \quad \text{s.} \\ 17 : 5 \\ \hline 9 \\ \hline 155 : 5 \\ \hline 4 \\ \hline \text{£ } 38 : 16 : 3 \text{ Answer.} \end{array}$$

See Example 811.

F I N I S.

